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By
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Front cover painting by Robert Gibson Jones, illustrating
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The OBSERVATORY

..... by the Editor

RECENTLY we caught an Associated Press radio release which might well be of interest to readers of *Amazing Stories*. It seems an unnamed Russian scientist has advanced the theory that the "meteorite" which tore up a huge hunk of Central Siberian real estate back in 1908, wasn't a meteor at all but some sort of vessel from outer space. The assumption is that instead of landing on Earth with a triumphant flourish and taking the joint over in the name of Blugutz, Emperor of Mars, the thing went out of control and spread itself over a few hundred acres of tundra.

WHILE we've never been able to go along with the Russian claims of discovering electricity and the forty-yard field goal, it did occur to us that maybe this business of a meteor really being a space ship could have a basis in fact. After all, reports have gotten around that flying saucers are vehicles carrying midgets from somewhere west of Neptune. So we did a little digging into the history of the Tungus meteorite (it's so named after the section of Siberia where it landed), and came up with some interesting information.

FOR ONE thing, no meteoritic substance has ever been found anywhere in the vicinity where the object is supposed to have landed. Actually, the "meteorite" apparently never even touched the ground, but supposedly exploded in midair, felling every tree, bush and native within miles. Dust filled the atmosphere and spread half around the world. Instruments thousands of miles from the scene recorded the phenomenon, and odd atmospheric disturbances were reported.

NOW THIS, as any expert on meteors will tell you, is no way for such things to act. Either a meteor burns out before it reaches Earth's surface, in which instance we never know about it; or it blows up with a wallop like one to a thousand block-busters. In the latter case, you can go around and pick up pieces of the thing (they cool with amazing quickness); but in the matter of the Tungus meteorite, there were absolutely no pieces to pick up.

WHY THEN, you'll ask (we did), were there no bits of machines and hunks of hull around to be gathered in as souvenirs? Well, it seems there's an explanation for that, too. Whoever put together the interplanetary ship realized something might go wrong whereby the craft could fall, intact, into the hands of a theoretical enemy on some other world. So safeguards were built into it, insuring its complete disintegration should any such danger arise.

THIS SOUNDED plausible to us—as it will to most readers of science fiction. And if any space ship is going to come to grief over that part of the world, we *want* it to blow up into fragments the size of dust motes! The point we're making, however, is that the mysterious object could well have been precisely what the Soviet scientist claimed: an explorer from another planet. The only things to reach us from across the void are meteorites; and since the Tungus object displayed none of the peculiarities of meteorites, this must have been something else. Q.E.D.—a space ship!

AS WE told you last month, *AMAZING STORIES* has moved its editorial offices from Chicago to New York. As far as actual working conditions are concerned, the change has made little difference. We still have a desk, a typewriter, stacks of incoming manuscripts and no ideas for editorials. But outside the office, things are considerably livelier. We keep bumping into writers who, it seems, want nothing more out of life than to buy our lunches and keep our glasses filled. True, most of them have an ax to grind; but who doesn't these days? All we know is that we enjoy being lionized—and if you think the average professional writer isn't an expert at that line, then it's a cinch you're not in the business!

COME to think of it, there is one fixture missing from the new office. When we look over where Bill Hamling is supposed to be sitting, all we see is a blank space. This we really regret; for William was, and is, one of the best editors in the stf game. Where is he now? All we'll say is—try a little Imagination!

—HB

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BEYOND THE RINGS OF SATURN

By Robert Moore Williams



The flame beast seemed to hesitate in midair; then suddenly it swooped toward Ur-Gluk. The Saturian didn't stop to open the door — he took it along with him!

The flame beast brought sure death to its enemies — and little better to its friends!



“**A** STEROID at three o'clock high!”

The voice of the technician manning the forward radar lookout position came into the control room of the cruiser, arousing there a frenzy of activity. Anywhere in space

an asteroid was dangerous business. Here, inside the rings of Saturn, they were fairly common and all the more dangerous because they were frequent.

In the big, easy chair from which all activities of the ship were controlled, fat Captain Adams hastily

punched the button which would connect the big view screen directly in front of him with the radar scanning station in the nose of the ship.

In his agitation, he hit the wrong button. Instead of the bow radar, he got the set in the stern of the cruiser. There flashed on the screen in front of him, a view of the rings of Saturn—rings composed of millions of tiny particles of rock that were the remnants of a moon which once had circled Saturn until smashed in some cosmic collision in the far distant past.

At the captain's mistake, a little prickle of nervousness passed through the men in the control room. There was not a man in the ship who did not know that Captain Adams was over-due for retirement, that he made mistakes.

Vaston, the ship's executive officer and second in command, glanced at the fat captain. The sudden lines of worry were etched on the executive officer's face.

Realizing he had made a mistake, Captain Adams hastily punched another button. This time he got the right one. There flashed on the view screen in front of him a reproduction of a jagged chunk of rock floating serenely through space—the asteroid.

At the same instant the voice of the forward lookout came again.

"Asteroid not on collision course with us."

The report, plus the vision on the screen, brought instant relief to Captain Adams and to every other man in the control room, except possibly one man at the radio panels. This man was Johnson Crane. Technically, his rating on this cruiser was that of space radioman, first class. If he was anything more than that, no person on the ship had had any intimation of it. A big man, quiet, unobtrusive, there was a hint somewhere about him of

hidden strength.

Listening to the report from the forward radar lookout, Crane wondered vaguely if there was anything wrong with it. There was plenty wrong on this ship, he knew. There was also something wrong here in space near the rings of Saturn. He, and some highly placed people in Planetary Government, had been aware of this fact for more than two years. The question was—what? There had been wild reports from freighter captains of something seen here, there had been rumors—

Crane felt a tingle of electricity pass along his skin. It was a mild thing, something like the charge of static electricity a person picked up from walking across a rug on a chilly winter's day. Crane hardly noticed it. What he did notice was the sudden fixed stare that appeared in the eyes of a technician at the plotting table near him.

The man was looking at something. His face was frozen with fear.

Other men in the control room were also looking at something. On their faces was the same frantic look of cold fear.

Crane turned so quickly in his chair, he hardly seemed to move at all. Turned, then instantly stopped turning. Paralysis settled over him. During the space of seconds, he could not move a muscle.

He saw what the other men were seeing.

He saw IT.

A HUGE hour-glass of living flame half as tall as a man hung unsupported in the air of the control room. Alive with glowing colors in the red end of a spectrum, it seemed to have a flaming red core as big as a man's fist, a heart of some kind. Out from this heart of flame, shifting and changing almost too fast for the eye

to follow, flowed lines of living flame.

Giving no indication whatsoever that it was coming, it had appeared miraculously here in the control room of the ship. How it had gotten here, Crane had no idea.

The sound that came from it was a soft burr.

There was pandemonium in the control room.

"Where did that thing come from?" a dazed radio man whispered.

"What is it?" a second yelled.

"What does it want?" a third said.

"Get the hell out of here!" a fourth screamed. The fourth man was talking to the flame beast itself, as if he expected it to obey him.

Instead of obeying, it moved toward the man who had screamed the order. The man dived under the table, clawed his way furiously across the room on all fours, like a terror-stricken animal trying to escape, shoved open the door of the control room, bolted through it.

Fat Captain Adams stared from bulging eyes at the flame beast. His mouth hung open. He did not move a muscle.

In his chair at the radio panel, Johnson Crane also sat without moving. Deep down inside of him, he knew one thing, this creature of glowing flame—this was it. This cruiser, wandering on lonely patrol near Saturn on orders from Planetary Government, had been sent here to find this one thing, though no other man on the cruiser knew this except Crane.

Crane had also been sent here to find this thing or to determine if such a thing existed, to check on the wild tales that were being passed by word of mouth through the lanes of space. Probably many men on the ship had heard parts of those tales and had ignored them, not believing that such fantasies could be true.

They would ignore them no longer.

Nor would Johnson Crane. The thing he had been sent here to find—had found him.

Very quietly, he slid a hand under the desk support jutting out from the radio panel, pressed hard against a certain spot. A soft, almost inaudible click sounded. No one noticed the click, no one noticed the change in the set. Behind the panels, a special radio transmitter went quietly into operation.

This radio transmitter was something very unusual. Only the men who had ordered it built, the technicians who had assembled it, and Crane knew that the transmitter hidden behind the panels would carry every sound spoken in this control room back across space to Earth itself, where a continuous wire recording would be made of the reception.

When Johnson Crane closed the switch, he was taking action that would automatically inform Planetary Government of every event that happened here.

And plenty was happening.

CAPTAIN ADAMS snatched from its holster the heavy pistol that all space ship captains carried. He fired shot after resounding shot at the hour-glass of flame floating in the air.

The thud of the gun rolled through the room.

The heavy lead slugs, designed to knock down a man, seemed to pass through the flame beast without harming it.

It showed no indication whatsoever that it was even in danger.

Adams threw the gun at it, watched without comprehension as the weapon passed straight through the flame creature.

Adams, gasping, fumbled for one of the buttons in front of him. Nobody knew what he had intended to

do but there instantly flared over the loudspeaker system of the ship the call to Battle Stations.

Perhaps this was the last sound the crew of this ship was expecting to hear. There had been no war in the Solar System since Saturn had been conquered. No one was expecting war.

The effect on the ship was electric. All over the cruiser, furious activity began. Men, awakening in the bunks, snatched frantically for clothes, failed to find them, and ran half-naked to the blunt-snouted cannons that would hurl explosive atomic charges out through space at any desired target.

Radar scanning stations in nose and stern began searching space for a sight of the enemy. The reports of the operators came back into the control room in the heart of the ship.

"Scanning! No target in sight. Scanning—"

There was no target outside the ship. The object which had aroused this furious activity was in the control room itself, in the form of an hour-glass of shifting, flaming colors.

The creature swung around the control room.

Without moving a muscle, Crane sat in his chair. "It's making an inspection," was the dazed thought in his mind. He had no idea of the nature of that inspection, of what the creature was looking for or what it wanted.

The freighter captains who had sworn they had seen hour-glasses of shining flame appear in their ships had claimed that these visits left dead men behind them.

Dead men.... Crane's flesh crawled at the thought. He knew he was probably powerless to prevent the sudden swift appearance of death in this control room unless he could think of something to do. What *could* he do?

He didn't know. Sometimes all you

could do was pray and hope. And keep your eyes open and your wits about you. In this moment, Crane found himself praying.

An inch at a time the flame beast was sliding toward the fat captain. Adams saw it coming. His face worked convulsively. Unable to move, he sat rigid and powerless in his chair.

As the thing approached him, he struck convulsively at it with one hand. The heavy wrist watch that he wore flashed on his arm as he slapped at the creature. The luminous numerals on the dial seemed to glow for an instant.

As if stung, the hour-glass of glowing flame jerked away from the blow. Now a sound came from it, an angry burring, like the throttled growl deep in the heart of some animal balked of its prey.

Now it moved with flashing speed straight toward a paralyzed man sitting at the table where the position and course of the ship was being plotted. He struck at it too. Nothing happened. It kept moving toward him.

It settled over him.

The angry burring sound changed in tone, became almost a contented purr, like a cat feeding.

Before the eyes of every person in the room, a man was being destroyed. Everyone knew it. No one knew what to do about it. Vaston was fumbling for something in his pocket.

Johnson Crane acted. He leaped, impulsively, to prevent this man from dying. His left arm was up, aimed at the flame beast. As he struck he saw the numerals of his watch glow with sudden brilliance.

Brrrrr!

The flame beast swirled upward. For an instant, it was a circle of flaming colors in the room. Then the colors vanished. The angry brrrr gave way to silence.

The hour-glass of flame was gone.

No one knew how it had come into the room; watching it leave, no one knew how it went. Perhaps it flowed through the interstices of the metal, perhaps it slipped into some other dimension.

Johnson Crane was aware of a vast feeling of astonished relief. And an equally vast perplexity. He had done nothing, except strike at the creature. It had fled before him. The man it had attacked had also struck at it. It hadn't fled before that blow.

What had he done to make the flame beast run? Or had it fled from something else, something of which he had no knowledge?

All he knew was that it was gone. He was damned glad of that.

His feeling of relief was swallowed up in the thundering roar that came from the stern of the ship. Crane knew the meaning of the sound. A vent tube had blown out under pressure.

In deep space, this would not be a matter of much consequence. Repairs could be made in a matter of hours.

But this cruiser was not in deep space. It was in close to Saturn, in so near that the gravity of that huge body would pull the ship straight downward.

The cruiser tilted, began to make the long gliding plunge that would end up in an explosive crash on Saturn unless some miracle could be worked in the time remaining.

CHAPTER II

THE GIRL had red hair. She also had the slightest skim of freckles showing on her cheeks. The person to whom she was talking—if you could call him a person—had no hair. As to freckles, he actually had a very fine set of them in the form of green mottled scales that he apparently

thought very attractive.

He was a member of the ruling species of Saturn. He looked a little like an alligator that had learned to walk on its hind legs but had never quite made up its mind to shed its tail. He had the tail, short and stubby, and in his opinion it was very attractive. Special chairs had been built in the reception room of this Earth administration center of Saturn, so that half-alligators like this one could sit down and be comfortable.

He had a name. It was Ur-Gluk, or something very like that. The girl had never bothered to learn the name exactly. When you used the special language convertor that had been devised to aid conversation between Saturians and humans, you didn't always have to get the words exactly right. In this communicator, an element of telepathy seemed to be involved, at least on the Saturian side of the conversation.

The girl's name was Jane Trumbell. If she had another name back on the Earth from which she had so recently come, it was a secret which she kept entirely to herself. Her title here in Saturn Port was Assistant Administrator of Native Affairs. She was one of hundreds with the same title, all of them working on the perplexing problem of keeping a conquered alien population satisfied. She spoke into the communicator.

"How do your people like the new food laws?"

"Fine. Very fine. Everything you Earth aliens do, we like very much."

It seemed to the girl that the answer came back a little too readily. She had the feeling that Ur-Gluk had thought this answer up beforehand, also that perhaps he was lying to her. How could you tell when a creature that was half alligator was lying to you?

The green colored scales shifted

and changed color. The scales indicated something of the emotional state of the creature that owned them.

"That is good," the girl said smoothly. If he was lying, it was a game that two could play. "We must all work together in the interest of peace and harmony." She put real feeling into the words and wondered if that feeling was translated adequately through the language communicator. With every atom of her being, she believed in peace and harmony, in good will toward all life forms. That was one reason she was here, hard at work.

"Peace and harmony?" Ur-Gluk droned back the words at her. "What are these things?"

She was at a loss as to what to say next. How could you explain peace and harmony to a creature that was half-alligator, whose entire life on this rain-soaked planet had been spent in the bitter struggle for survival, who fought his own kind, and every other form of life on Saturn, with a vast and eager ferocity?

"Why—" She stuttered a little, aware that she was confused, and angry at herself because of it.

Crash!

The horned fist of Ur-Gluk came down on the table between them with such force that the stout top splintered.

"You are lying!" The words shrilled from the communicator. "You are like all humans. You talk of peace and harmony but what you actually mean to do is to exploit us!"

"But—" Exploitation was not a part of her scheme of life. She knew the traders, the vast interplanetary enterprises, did actually exploit the natives of all the planets to some degree at least, but that exploitation had a mutual aspect. If they took hard-earned native wealth for their products, they also gave back to the natives tremen-

dous advantages in the form of better products, canned goods, refrigerators, plastics that had a million uses. "There is no real exploitation—"

"Lies, all lies!" the language convertor screamed. "You have taken our freedom—"

"But it was in a good cause. You people were threatening the peace of the whole solar system!"

"Had we not the right? Are we not the superior race?" The rage in his voice showed the real source at long last of Ur-Gluk's anger. He, like many other Saturians, had fallen a victim to the delusion that they were a superior race.

"Are you the superior race? Prove it!" The girl was becoming angry now, both with Ur-Gluk, for shouting such nonsense at her, and at herself, for listening to it.

"I will prove it!" The Saturian leaned across the table toward her. "Right now I will prove I am superior to you. You are a spy!"

"What?" She gasped the single word.

"You are no simple employee of this administration center. You are a spy, working secretly for Planetary Government."

This secret, she was utterly certain, was known to no one on Saturn except herself. Yet this half-alligator was flinging the words at her as if he was completely certain of what they meant. How had Ur-Gluk known this fact? Had he guessed it? Or did he have secret sources of information?

"I—I don't know what you are talking about."

"You know very well what I am talking about. Your real mission here is to check on how my people are accepting the rule of you humans. Your Planetary Government suspects a revolt is brewing here. You, and many others, I doubt not, have been sent to discover all you can about this

revolt. Well, there is one fact you will never report."

"What is that?"

"You will never report to your superiors that we Saturians are ready and prepared to wipe you Earth scum from the face of our planet."

THERE IT was in words, the fatal truth. There was a revolt brewing! Ur-Gluk had just admitted its existence. Now all she had to do was to report to her superiors. That would be easy. She could walk into the adjoining room and file a report on a wire recorder. Within minutes, her words would be on their way back to Earth.

She rose to her feet. "I don't know what you are talking about!" She was quite calm.

"Sit down!" Ur-Gluk said.

To her astonished surprise, she did sit down. This one fact startled her more than anything else could have done. What was the matter with her? No one had ever dominated her. No one had ever given orders to her. Except this Saturian alligator!

"But—"

"I will tell you what you are going to do!" Ur-Gluk said. "You thought you were going to tell me. But you aren't. I am the one who will do the telling. You are coming with me, this instant, to the hidden laboratories and workshops where the Saturian fleet has been constructed, where the whole revolt has been planned and prepared."

Shock rolled through her. "I will do no such thing!"

Ur-Gluk rose. His beady eyes were alive with triumph—and with something else. He moved toward the door that opened outward on to the landing field where his flier was stationed.

"Come!" he said.

To her horrified surprise, she found her legs were taking her along behind

the Saturian. She was not willing them to walk, they were walking of their own accord.

In that instant, she realized, in horrified shock, what must have happened. Ur-Gluk was one of those rare Saturian freaks, a real telepath. All Saturians had touches of telepathic ability; Ur-Gluk had a much larger degree of it. With this ability, he had sensed her thoughts, he had known what her real purpose on Saturn was.

In addition, he had one other ability—he was a hypnotist.

Without her knowledge, he had hypnotized her, done it so quietly and so effectively that she was now completely under his control.

Doubt struck her. Was this true? Could anyone be hypnotized without his knowledge and complete consent? It could not be done on Earth. But this was not Earth, this was Saturn, the ringed planet that swung in grim majesty through space. Such hypnotism might be possible here.

"It is! I have used it!" Ur-Gluk's thought came floating into her mind, confirming her worst fears.

Trembling, her face white, she found herself going with him through the door.

Outside was a gusty wind that stung her face, and raindrops almost as big as hail stones. They splashed over her, a sudden shower of them, wetting her to the skin, revealing the lithe contours of her perfectly formed body, high breasts, a flat stomach, hips with just the right amount of rounded bulge to them.

The raw air of Saturn stung her nostrils.

Ur-Gluk moved straight toward a Saturian vessel. She followed him, a helpless prisoner.

In this stinging rain and in this biting air, Ur-Gluk was in his element. This was his climate. His skin glowed with a deep, satisfied shade

of green. He waddled through the puddles on the landing field as if he liked the feel of water on his feet.

A Saturian guard, posted at the lock of the ship, saluted quickly, and hastily opened the port for them.

Ur-Gluk went in first.

In the door, the girl turned. In her mind was the final desperate thought of flight.

She saw, from the lock of the ship, the vast Earth Administration Center there behind her, hundreds of buildings.

Surely in all that vast concourse, there was somebody who could help her.

Surely, she thought desperately, she could run, screaming, the distance necessary to attract the attention of some human. Over to her left, Earth freighters were unloading. To her right, were two destroyers of the fleet.

She could reach them. She would reach them.

"Try it!" Ur-Gluk's voice floated into her mind.

She did try it. She found she could turn her head and look. But she could not take a single step in the direction she wanted to go. And she could not scream.

Ur-Gluk had her trapped, hard and fast.

At his command, she moved on into the ship. The lock closed behind her. Vaguely she heard the sound of its closing. Then, quietly, she fainted.

CHAPTER III

THE SHIP fell like a shooting star. The planetary mass of Saturn had the vessel in its grip.

Screams of pure panic ripped through the cruiser.

Death lay waiting for every member of the crew, down on the surface of Saturn, death in the form of an explosion that would send red-hot sky-

rockets of flaming metal soaring through the rain-streaked atmosphere, that would send droplets of human flesh splashing in every direction.

In the control room, fat Captain Adams fiercely pushed the buttons on the control panel in front of him. Answers came back in the form of ringing bells, in the form of voices trying to answer the questions he asked. Adams did not listen long enough to any report to know what had been said to him.

"What happened to that vent tube?" he shouted over the inter-com to the engine room.

"Some imperfection in the fuel.... nobody knows.... tubes blow sometimes...." The chief engineer was explaining what everybody knew, including Adams.

"Replace it instantly!" Adams shouted.

"But that is impossible—"

Adams did not wait to hear what the engineer said. He jabbed the button that connected the view screen in front of him with the bow radar.

There appeared on the screen the gigantic mass of Saturn.

"My God, we're going to crash!" Adams gibbered. His face was blotched.

"Report to space patrol headquarters!" he shrilled to Johnson Crane.

"Yes, sir," Crane answered automatically. He turned to the radio panel, started to carry out the order, then realized that he did not have to make a report to the space patrol. The secret transmitter built into the radio set was already carrying a complete report of everything that was happening straight to Planetary Government itself.

Planetary Government issued orders to the space patrol. If the space patrol did not immediately get a report of what was happening here on this cruiser, it did not matter. Planetary

Government would handle the report through proper channels.

He did not have to report to the space patrol.

All he had to do was—act!

He was in the control room of a ship where a captain half out of his mind was making a dozen different mistakes each moment.

Crane acted with a decision that was characteristic of him. Moving straight across the control room, he slugged Captain Adams on the jaw.

Adams slumped down in the control chair as Crane's fist crashed against his jaw.

Crane leaned forward against the railing that separated the control chair from the rest of the room, grabbed the fat body and yanked it from the chair. Inwardly he seethed at the high policy which permitted such wrecks as Adams to captain space vessels but as he seethed, he knew that plain ordinary economy measures made such things possible. Competent young men to handle cruisers cost money in the form of a long and expensive training program. Planetary Government simply did not have enough money available to meet all the demands made on it. Hence, it compromised. Hence, incompetents such as Adams occasionally were left in command of cruisers.

JERKING Adams out of the way, Crane settled himself in the control chair. He shoved home the main switch that enabled him to communicate directly with every position in the ship. Now in this moment his voice could go out to all officers in a responsible position and to all members of the crew.

"Johnson Crane, agent, Planetary Government, now assuming control of this ship!"

In an emergency such as this, agents of Planetary Government had

authority to take over vessels of the space patrol. Every officer and every man on all fighting ships were well aware of this fact. It was written into general orders.

Crane's calm, poised voice went through the ship. The very fact that it was calm and poised helped other men.

Crane waited for the first report to come back to him.

There was a moment of silence. Then a voice came, questioningly, from the engine room. "A PG agent on this ship—"

"Right," Crane said.

"Okay. What are your orders?"

"Tell the chief engineer to take full charge of the engine room and to make all decisions necessary to bring the ship under control for a landing on Saturn."

"The chief engineer? Hell, I'm the chief. Grimwald—"

"Then you must know everything there is to know about handling your own engine room. Handle this emergency as you see fit!"

"Do you mean that?"

"It is an order. I have authority to issue such orders. You make the decisions about your own engine room."

"By God, you can bet I will do just that. That damned Adams—" So far the chief engineer could go in criticizing his superior officers, but no farther.

The engine room was the heart of the ship. If the blown vent tube could be repaired even temporarily—

A questioning voice came from the forward lookout. "Sir, not much time is left—"

"Carry on," Crane said.

"Shut up!" a voice said, at his elbow. He turned astonished eyes in the direction of the speaker. Vaston stood there. Vaston was the executive officer who would automatically assume command if something happened

to Captain Adams.

Vaston had a face of iron. Hard gray eyes looked straight at Crane, a chin jutted out toward him. Vaston's right hand was pointed straight toward the PG agent.

The hand held a miniature Z-gun.

Crane stared at the weapon. It was a deadly little device. A pellet from this gun would blow a human body to bits. Until this moment, he had not known there was another Z-gun on the ship, except for the one that he carried.

Crane blinked startled eyes at Vaston. "Okay, you've got the gun. What do you want?"

"I only want one thing," Vaston answered. "I heard you say you were an agent of Planetary Government."

"And so I am."

"Prove it!" Vaston shot the two words at him. Crane knew what they meant. Vaston was the man who would take over the ship. Vaston would take it over, with a Z-gun, unless Crane could instantly prove he was what he claimed to be.

"Okay," Crane said. He moved his wrist watch to his lips, breathed gently on it. The crystal had been treated so that it would respond to his breath and to his breath alone. A great deal of chemical research had gone into the construction of that crystal, into making it what it was.

As Crane breathed on it, there came into existence on the surface of the unbreakable crystal a five-pointed star enclosed in a circle—the badge of an agent of Planetary Government.

"Recognize it?" Crane said.

Vaston stared hard at the symbol revealed there. Slowly, his face relaxed. The Z-gun went back into his pocket.

"You are what you claim to be. I accept your taking over command of the ship. What are your orders?"

"My orders?" Crane did not have

to think about that. As he had put the chief engineer back in charge in the engine room, his job here was to put this executive officer back into command of the ship. He snapped the switch that communicated with all positions on the ship.

"Crane, PG agent, relinquishing command to executive officer, Vaston!"

Crane slid out of the control chair. Vaston, the trace of a grin showing on his rugged face, slipped into the seat Crane had vacated.

"Vaston, executive officer, now taking over ship on orders from PG agent. All previous orders confirmed."

Vaston took over like the competent, efficient officer that he was. The exec knew the ship intimately, knew it far better than Crane. Listening to Vaston issue orders, Crane knew that if anybody could save the ship, Vaston was the man to do the job.

A REPORT came up from the engine room.

"Temporary repairs made on blown vent tube. Blast now functioning."

"Good!" Vaston said.

From the rear of the cruiser there came the sweetest of all sounds to the ears of a spaceman: the smooth continuous thrum of engines operating properly.

The mad plunge of the ship was stayed. Like a skittish mare that has finally felt the touch of her master on the reins, the ship seemed to right herself.

Vaston was staring at the view screen. Crane followed the line of the executive officer's gaze, saw with horror what was revealed there.

The ship was already deep inside the atmosphere of Saturn.

Mountains were showing on the view screen. They were hidden by thick mist, swirling rain, but the bulk of them was being revealed by the

radar equipment.

Beyond the mountains was a long plateau. Crane caught a glimpse of something that looked like a landing field cut out of the deep jungle of the table-land.

Vaston's face was granite hard. "We're too far down to lift her up before we hit. I'm going to try for a crash landing on or near that cleared space on the plateau."

Ahead was a mountain. Vaston changed the course of the speeding cruiser. The mountain swung by on the left.

The nose of the ship was down. Desperately Vaston was trying to lift it up. He was failing.

"Prepare for crash landing!" his voice rang through the ship. "All hands! Prepare for crash landing."

CHAPTER IV

AS SHE STEPPED from the Saturian flier, Jane Trumbell caught her breath. There, moving like a ghost through the mists, was an Earth ship, obviously in distress. She heard the thrum of the drivers, caught a glimpse of the vessel, knew instantly from its outlines that it was an Earth cruiser. A war ship! If she could get to it, could report to some member of the crew what she knew to be true of the brewing revolt here on Saturn! If!

She saw the ship come down on a long glide. She saw it begin to touch the tops of the huge trees that grew here in this Saturian jungle. It plowed a great swath through them. The sound was like a herd of elephants stampeding through a forest. Gigantic trees were snapped off like matches being broken in the fingers of a giant. The girl held her breath.

The ship hit! It bounced. It slewed crazily through the forest. With a great roar of snapping trees, it came

to rest near the edge of the Saturian space port.

It was down! The stout hull had held! When Earth technicians built a ship to range the lanes of space, they built well. This ship might be an old vessel, but it was solidly built, and it could take punishment. The girl breathed a sigh of pure thanksgiving as it came to rest. There, somewhere in that ship, were human beings. She took a tentative step toward it.

To her amazement, she found she could move of her own free will. She glanced quickly at Ur-Gluk. The Saturian was staring at the crashed ship. The colors of his mottled scales had come down from a brilliant green almost to white. Ur-Gluk in that moment, came as close as was possible for a Saturian to look like a human who is seeing a ghost.

To Ur-Gluk, the sight of this ship was much more disconcerting than the sudden appearance of a ghost would be to a human being. An Earth ship, even in a crash landing, near the carefully hidden Saturian landing field and headquarters, was the last sight he wanted to see in his life. He knew how humans worked. If one of their ships crashed, there were certain to be a lot of this strange race around asking why. Also asking what had happened to it. And asking what had happened to the members of the crew.

Humans looked after their own kind. An oath of pure Saturian profanity rolled from Ur-Gluk's mouth.

In that instant, the girl fled silently and quietly across the field toward the crashed ship. She found she could run. Glancing back, she saw that Ur-Gluk had not even noticed her flight. He had his mind on too many other things to think of her.

Behind her, alarm bells jangled. She knew that the Saturians were being alerted, knew also that soon they

would be swarming over this crashed Earth ship. If she could only reach the protection of the trees at the edge of the space port before they discovered her flight!

She reached the trees. Their green tangle closed in around her. Somewhere directly ahead of her was the ship. She could not see it now, but she knew exactly where it lay. She fought her way toward it. Briars tore her clothes, tore the tender skin beneath. Thorns snagged her. The saw-edged leaves of jungle plants scratched her.

The ship was there directly in front of her. She caught a glimpse of it.

"Help!" she screamed.

Members of the crew were already out of the cruiser. They were too busy congratulating themselves that they were alive to hear a human voice calling in this jungle.

"Help!" the girl yelled again. Still no one heard her. She fought her way through the last tangle of underbrush. The wrecked cruiser lay before her, within her reach. Crying, feeling the throb of misery and of anguish in her heart, she stumbled toward it. She hardly saw the man who turned startled eyes toward her.

"Great God!" Johnson Crane gasped. "A human woman here in this place!"

AS SHE CAME toward him, he caught her in his arms. She lay there with her head against his chest, sobbing and gasping.

"What happened to you?" Crane demanded. "What are you doing here?"

She didn't answer, couldn't answer. He let her cry. Suddenly she was talking. "Quick, I've got to tell somebody!"

Crane thought resignedly, "They've always got to tell somebody!" Aloud he said, "Tell what?"

"I'm a secret agent of Planetary Government!" the girl said.

"What?" Crane gasped. That he should meet a woman here at all was sufficiently startling, that her first words should be that she was a secret agent of PG was almost beyond understanding. Yet he knew that Planetary Government often employed women for this purpose.

"I don't expect you to believe me!" she snapped the words at him. "But whether you believe me or not, if you ever get out of here alive, I want you to report to Planetary Government that the Saturians are planning to revolt!"

"Lord in Heaven!" Crane breathed. "Are you out of your mind? How could the Saturians revolt?"

"I don't know," the girl sobbed. "I mean, I don't know the details. But I know what they are planning. They have built ships. They intend to wipe out Saturn Port in a surprise attack. Then, with their new ships, they intend to defend the planet against any attack Planetary Government can bring against it. In time, they can build up sufficient force to attack Planetary Government itself."

The words she spoke were so startling to Crane that he shook her, roughly. "You little fool, do you know what you are talking about?"

"I know exactly what I am talking about," the girl answered. Her voice was suddenly calm. She gave Crane the impression that she was listening as she talked, listening for pursuit. Somewhere off in the distance he heard the clang of bells.

"Don't you realize you have landed exactly on the edge of a hidden Saturian space port?" the girl said. "Don't you hear those bells?"

"I hear them!"

"They mean pursuit is coming, after me. They mean also that you are in danger. I don't know what they

will do to me or what they will do to you. But I know I have to talk fast and that you have to believe me."

"Talk fast, then! I'm listening!"

"The Saturians are not only planning to revolt, they not only have built new ships, but they also have some kind of a secret weapon!"

"What?" Crane gasped. "What kind of a secret weapon do they have?"

"I don't know," the girl whispered. "I just know that Ur-Gluk let slip the thought of a secret weapon. I don't have any idea what it is. But it exists, and it is real. Please, you must believe me! Also you must get my information back to Planetary Government as quickly as possible."

Crane hesitated. This girl was stark raving crazy, from terror or from something else. He had no idea what had actually happened to her but he could recognize terror when he saw it. There were no secret weapons. There were only new developments of old ideas. "Get yourself under control! You are acting like an idiot."

He shook her again, then stopped shaking her as one single horrible picture popped into his mind.

THE PICTURE that came into his mind was the memory of the thing he had seen back there in space, the thing that had come into the control room of the cruiser that lay behind him, the horrible monstrosity that had almost wrecked this ship!

What if that monstrosity he had seen with his own eyes was actually the secret weapon of the Saturians?

What if they had made some really new discovery and had been testing its effectiveness against Earth ships in the lanes of space?

What if this monstrosity was actually some new discovery and was under the control of the Saturians? Perhaps it might be directed by very

high frequency radio waves, sent to its destination, then recalled at the will of the operator.

"But I don't know of any device that could be used like that!" he whispered.

"Like what?" the girl answered.

He shook his head, savagely. "Now I'm crazy," he snapped at her. "I saw something come into this ship, almost wreck it, knock it out of control."

"What did you see?" the girl said.

"I don't know what I saw," he answered. "All I know is, I saw something. What the hell it actually was, I intend to find out, if I can."

"One thing you can do that would certainly help is to get the report through to headquarters of Planetary Government," the girl said.

"Why don't you do it?" he answered.

"Because—" Her face changed. A blankness crept over it. "Because— Oh, I can't say it."

She backed away from him, then turned abruptly and began to run. What had happened she knew very well. Ur-Gluk had discovered she had fled. The Saturian had resumed his telepathic hypnotic control of her.

"Come here!" Crane shouted.

She fled into the dripping forest, lost herself there. She didn't know it but she was running straight to Ur-Gluk, who was coming through the jungle growth with a force of Saturian soldiery at his heels.

She ran straight to Ur-Gluk before she knew she was near him.

"Uh!" the Saturian grunted, at the sight of her.

She cringed away from him.

"Take her, keep her out of sight," Ur-Gluk snapped, to the Saturian major in charge of the group of soldiers.

Jane Trumbell found herself in charge of two Saturians who were smaller replicas of Ur-Gluk. They were soldiers, armed with heavy

swords that were more like battleaxes than any Earth weapon the girl had ever seen. The heavy axes were used for fighting at close quarters. There are few things the Saturians like better than to go into close combat, swinging these heavy axes, their fierce battle cries sounding from hoarse throats.

In addition, the two soldiers escorting Jane Trumbell away from the ship were armed with some stubby little weapon that looked a lot like a machine gun, but obviously wasn't.

One blessed fact was sure in her mind. Ur-Gluk had released his hypnotic control of her. She was again able to act of her own will.

All she had to outwit were two Saturians. If she could get away from them, she could eventually get back to the ship, get back to the presence of human beings.

If!

CHAPTER V

AS CRANE realized the girl was running from him, he started after her. She slid into the green tangle. As elusive as a vanishing ghost, she was gone.

"Hey!" he yelled. "Come back here."

There was no answer. He shouted again, louder. From behind him, Vaston called, wanting to know what was wrong. He ignored the officer. Whoever and whatever this girl was, she was important. What was this mad story she had babbled? Why had she run away from him?

The fact that she had fled at all was utterly confusing to Crane. Secret agents of Planetary Government did not run away from danger. They were a carefully selected, tough minded, tough muscled lot. Certainly this was true of the men: perhaps however the women were not quite so tough

minded as the male of the species. Nobody had ever been able to predict quite what a woman would do in a crisis.

Crane was already out of sight of the ship.

"Hey! Where are you?"

He did not get an answer from the girl. Instead he heard the crashing of underbrush which announced the approach of something—he did not know what. Before he could move, the underbrush opened in front of him. A Saturian soldier stood there. At the sight of the human, the Saturian lifted the heavy axe that he carried, and prepared himself to charge.

Crane stood poised. The Saturian charged. Crane ducked, slid to one side. The lifted axe that had been aimed at his head knocked bark from a heavy tree.

The startled Saturian soldier turned, seeking his elusive prey. Crane's hand was already in his pocket, his fingers around the butt of the Z-gun that he carried there. This Z-gun was the weapon of last resort so far as PG agents were concerned. Crane did not want to use it, would not use it if he had another choice.

The soldier started toward him again. Crane's finger crooked around the firing trigger of the Z-gun.

A harsh command rang out.

The soldier stopped. He came rigidly to attention. Crane turned quickly. A whole party of Saturians had fought their way through the underbrush. The command to the soldier to stop his attack had come from their leader.

CRANE FACED them. The leader was big, even for a Saturian. He stood looking at the human. Crane stared straight back at him. It was always difficult to tell what a Saturian was thinking, or even if he *was* thinking, but this leader seemed to be

especially difficult to read. Only the keen bright eyes showed he was even alive.

Crane did not look at the bright, glowing eyes. Instead he looked at a spot directly between them. It was an old trick with him, one he used unconsciously. So far as the Saturian could tell, Crane was looking him straight in the eye. Crane knew he wasn't, knew also that as long as he did not look this creature straight in the eye, but only appeared to do so, there was no chance that the Saturian might slip up on him with some of the telepathic hypnotism these alligator monsters sometimes used.

Crane felt something probing at his mind. The hunch that came up in him then was that this monster, somehow or other, was trying to read his thoughts. His first amazed idea was that this mind-reading stunt was impossible.

If it was possible that this Saturian monster was trying to read his mind, Crane had an answer. He forced himself to think of the crashed ship behind him, of the simple fact that it had crashed, giving no reason for the crash other than engine failure. He also forced himself to think of the situation directly facing him, that he was looking a Saturian in the eye and was a little worried as to what might happen next.

But not much worried. If he appeared to be too worried, the Saturian might make a shrewd guess as to the cause of that worry.

There, in that moment, without Crane fully realizing what was happening, he was locked in battle with a shrewd and wary and very intelligent antagonist.

If Ur-Gluk could read his mind, could get from it too much information, Crane and all the other occupants of the ship might be dead within hours. If Ur-Gluk could hypnotize

him, by telepathy, as he had hypnotized the girl, Ur-Gluk would be in complete command of the situation.

If!

Crane felt sweat oozing from him. He was fighting something, he did not know what. Deep layers of his mind shrieked warnings at him.

Sweat oozed out of him as he kept these voices hidden within him. He did not move. He stood still, facing the impossible, waiting for it to happen, whatever it was.

Little by little, it began to happen. The fingers of thought probing through his mind began to go away. Suddenly Ur-Gluk dropped his gaze. The Saturian's deep green color began to change, to drop down the scale toward white.

Crane was not quite sure of it, but he thought something of a shudder passed over this half alligator.

Ur-Gluk was shaken. In this moment, Ur-Gluk had run up against what seemed to him to be the impossible, a human being he could not control and could not understand.

Ur-Gluk made a gesture. A Saturian hastily brought forward a portable communicator.

In that simple gesture, Ur-Gluk began to fight for time. If he could not read the mind of this human, then he had to talk to him over the communicator. Perhaps, via the communicator, he could get the information he wanted.

Ur-Gluk was not licked; he was simply baffled. He did not know what to do.

Crane was likewise baffled. Like Ur-Gluk, he did not know what to do.

"ARE YOU IN trouble?" Ur-Gluk's voice came over the communicator. "We saw the ship crash—"

"And naturally you came to help us," Crane said, quickly. In his mind

was the memory that the first Saturian soldier had tried to kill him, also in his mind was the disturbing fact that this monster had tried to seize control of him. Also was the memory of the girl. It didn't seem to Johnson Crane in this moment that these Saturians had actually come here to help.

"Well—" Ur-Gluk's communicated thought and voice-tones faded out.

"Well, what?" Crane said. "We need some help. Had some trouble in the drive rooms and made a forced landing. You will be well paid if you help us. But, in case you are considering attacking us, the ship is armed with atomic cannon in good operating order." Desperately Crane hoped the last was true.

If the cannon were not in good order, they soon would be. Trust Vaston for that.

"But, certainly, we want to help," Ur-Gluk said. He said it twice. He said it again. "You have only to command our poor services. The best we have is yours."

"Good," Crane said. "We will accept such help as we need." Inwardly, he had deep reservations as to the real nature of the help this Saturian monstrosity intended to offer. In Crane's secret opinion, which he kept well hid from any stray telepathic pick-up, what Ur-Gluk wanted most to offer was a knife in the back. Or one of those Saturian axes over the head of a human who happened to stand in his way.

"What are you doing here?" Ur-Gluk said. "The ship is there." He pointed through the green tangle. "You are here." Again the eyes sought Crane's vision. Again Crane looked at a spot directly between the two flaming optics of the Saturian.

"I heard you coming," the human answered, easily and indifferently. Crane had no intention now of re-

vealing that he had been chasing a girl. The girl was a bit that fitted somewhere into a much vaster puzzle, a picture puzzle that moved perhaps across a cosmic stage.

"Oh. You heard us coming?" Ur-Gluk said. The way the words came out of the communicator formed a question. Again Crane felt the groping fingers trying to work their way into his mind. He clamped down hard control.

"Sure," Crane answered. "Everybody within a mile must have heard the noise you alligators made when you came thundering through the jungle."

"Uh!" Ur-Gluk twisted. To Crane, it was obvious that the Saturian was uncertain and in doubt. Crane could almost read the mind of Ur-Gluk from his actions. Ur-Gluk was worrying about this sense of hearing that humans possessed. Did humans hear sounds that Saturians couldn't hear? Did this perhaps mean that humans might possibly possess other senses of which the Saturians were unaware?

"Are you perhaps an officer of the ship?" Ur-Gluk asked.

"No. Just a radio man."

"Do you humans dare to send such unimportant underlings to meet us?" Anger flared through the communicator. Ur-Gluk didn't like the idea of being met by anyone less potent than the commanding officer.

"Sure," Crane answered. "The exec, when he heard the noise your bunch made, sent the first man he found. It happened to be that man. There was no offense intended."

"Uh. No offense!"

UR-GLUK didn't like that idea, either. If these crazy humans could send just anybody to meet such an important Saturian as he was—Well, in that case, they must feel utterly secure. If they felt secure, per-

haps they *were* secure. In which case, it behooved a smart Saturian like Ur-Gluk to proceed with extreme caution, to feel his way along until he could make up his mind.

"If you would like to return to the ship with me—" Crane said.

"Naturally," Ur-Gluk grunted. "Of course I will return to the ship with you. Likewise I will bring with me this guard detail which you see here." He nodded toward the silently watching Saturians.

Crane shrugged again. He turned. The instant his back was turned, he might get a thrown battle axe in his brain. He might also get a charge from those stubby little weapons the Saturians were carrying.

Turning his back now and walking toward the ship was like walking into the face of certain death. Crane knew it, knew also that he had no choice, that the slightest show of weakness on his part, the smallest indication of insecurity, would bring the ravening horde down upon him.

As he moved away, he slipped his hand carelessly into the pocket which held the Z-gun. Also, he listened for the sounds that soon would, or would not, come from behind him.

Which would it be, the almost silent swish of a thrown axe, the blast of a gun—or would it be the tramp of heavy feet following him?

He felt his heart-beat pick up as he waited for the sound that would give him the answer to—life or death?

CHAPTER VI

THE GIRL was held prisoner. She had thought she could outwit two stupid Saturian soldiers, she had attempted to run, and had been caught almost before she had taken three steps. From then on, one of the soldiers had carried her. They had placed her in a locked, barred cell located

somewhere underground. She did not know where she was. She did not know what was happening.

All she knew was that time was passing. A day, two days, three days passed. Food was brought to her at irregular intervals. The only way she could tell that time was passing at all was by the fact that the door was opened occasionally and food and water were shoved in at her.

During this time, she almost went mad. She wondered if her message that the Saturians were planning to revolt had been delivered to anybody who would take it along to Planetary Government.

Had the man she had talked to understood what she was saying?

Or had the ship been attacked by the Saturians and every human aboard massacred?

She paced the floor of her cell, back and forth, repeating an endless round of aimless steps. When she was too tired to take another step, she fell sobbing on the rude bunk in one corner of the room. She was asleep when the guards finally came for her.

Half-carrying, half-dragging Jane Trumbell, they took her up flights of steps, so many she lost count of them. They brought her to a door, opened it, and shoved her through.

She was pushed into a room that was well furnished, according to Saturian standards. Jane Trumbell paid no attention to the furnishings. There was only one thing in this room that caught and held her attention—a man.

It was the same man she had talked to outside the wrecked ship. She stared at him, hardly able to believe her eyes, hardly able to realize he was there in person, alive, seemingly unhurt. He was rising to his feet. His face was puzzled, perhaps a little worried. But, in spite of the worry on it, this was a kind face, maybe the kindest face she had ever seen.

She fled to this man, fell sobbing into his arms. He let her cry. "I'm Johnson Crane," he said softly. "I've been looking for you."

Deep down inside of her she was aware that it felt good to know that this man had been looking for her. "I'm Jane Trumbell," she whispered. "What—what happened to the ship?"

"It's ready to leave," Crane answered. "Vaston, the executive officer, happens to be something of a genius. He brought the ship down safely, major repairs have been completed." He was telling the truth. What he did not tell her was that a ring of Saturian soldiers was now guarding the ship.

The Saturians were there ostensibly to "protect" the ship from dangerous animal life in the jungle. Their actual purpose, both Crane and Vaston guessed, was to prevent the ship from taking off until Ur-Gluk was ready for it to leave.

Or for it not to leave, depending on which way Ur-Gluk made up his mind.

UR-GLUK was being very wary, and very cautious. Crane had warned both officers and crew to be constantly on guard against any mind-reading attempts via Saturian telepathy as operated by Ur-Gluk. So far as Crane knew, Ur-Gluk had not succeeded in getting any information from the crew except what the Saurian's eyes had given him. Nor any information about the ship, either. No Saurian had been permitted to enter the damaged vessel.

"Did you—did you—?" The girl's heart was in the words she was trying to say. What she wanted to ask was whether or not Crane had succeeded in passing along to Planetary Government the information she had given him about the Saurian secret weapon and the revolt on the ringed planet.

As she started to speak, she felt Ur-Gluk's probing thought tendrils enter her mind.

The fact paralyzed her. Ur-Gluk again was reading her mind. She knew instantly what this fact meant. Her meeting with Crane was a trap Ur-Gluk had set.

Ur-Gluk was trying to get information from her. Just as he had gotten information from her back in Saturn Port, without her knowledge, he was again planning to strip her secrets from her.

If she opened her mouth, if she even thought such things, Ur-Gluk would know instantly that she had told Crane about the revolt.

Ur-Gluk would destroy both her and Crane.

The thought froze her mind and body. She could not move. She could only stare at Crane, hoping somehow that he understood what had happened.

Crane saw the change come about in her.

"What's wrong?" he said.

"Why—uh—nothing," she whispered.

"But something is wrong," he insisted. "I can see it in your face and in your eyes."

"Nothing, nothing," she answered. Her voice was a whimper, a little whisper of sibilant sound.

He caught her shoulders. "Tell me!"

"But I can't tell you. If I do—"

She did not finish the sentence. Instead, she hung limply in his arms.

With a growl, he caught her up. He did not know what was wrong with this girl, but he knew there was a damned competent doctor back on the ship.

"I'm taking you back to the ship with me," he said.

It was the most welcome sound she had ever heard.

Carrying the girl, Crane turned to

the door by which he had entered. Neither Ur-Gluk nor anybody else would dare try to stop him.

He lifted the heavy latch on the door, started to open it.

The door did not swing open.

He shoved against it.

It did not give.

Horror rising in his heart, he realized the door had been quietly locked behind him.

They were trapped!

He swung away from the door. A sound caught his ears. Across the room another door was opening. Crane stared at it. Under the girl's body his fingers moved swiftly to slip the Z-gun from his pocket. He hid the gun from sight.

The door opened.

Ur-Gluk stood there.

THE SATURIAN looked more like a monster than ever. His green scales were glowing with a vivid green color. His alligator jaws hung half-open. His eyes were gleaming.

In his hand, he held one of the stubby little weapons of the Saturians. No axe, no sword, just this little weapon. Behind him came two other Saturians, carrying the inevitable communicator.

"Drop the human!" Ur-Gluk shouted. His eyes were fixed on Crane with feverish intensity.

Crane looked directly between these glaring eyes.

"To hell with you!" he said quietly.

"Ah?" The gasp that came from the communicator indicated astonishment.

"I said to hell with you!" Crane repeated. To the Saturian, hell was a meaningless word. However, the communicator, picking up Crane's voice, would translate hell into some word that would carry the equivalent meaning to Ur-Gluk.

Ur-Gluk turned even greener with both anger and rising fear. He shoved forward the little weapon he held.

"This is a new weapon, a secret weapon!" he shouted. "It will blow you, and the girl too, into bits of bloody flesh."

Crane caught his breath. There was some substance to the girl's wild story about the Saturian's possessing a secret weapon. They actually had such a weapon.

But would Ur-Gluk use it? Crane clutched the Z-gun he held. Should he shoot now, and destroy this Saturian overlord, or should he wait? Sweat was pouring from him.

"Perhaps you do not believe in the power of this weapon!" Ur-Gluk shouted. "I will show you what it will do!"

He swung it, at the nearest of the two Saturians who had entered the room with him.

There was a soft *phut* from the weapon. There was a much louder *phut* from the Saturian as he was literally torn into shreds of bloody flesh. Green colored blood splashed the walls of the room. The stricken Saturian crumpled into a formless mound of dead cells.

"See!" Ur-Gluk shouted. This was his triumph. No human would dare reject the evidence of his own eyes. Ur-Gluk watched Crane, waiting for the dazed moment to come to the human when he could seize control of him.

Crane looked utterly astonished. But his astonishment was from a different cause than what Ur-Gluk thought.

"Is that your secret weapon?" Crane gasped.

"It is!" Ur-Gluk answered.

"Do you know *what* that weapon is?" Crane asked.

"Yes. I mean—"

"It just happens to be a modification of the Z-gun that we humans de-

veloped long ago," Crane answered. "I don't know the whole story but probably some spy stole old blueprints for the development of the Z-gun, and sold them to your scientists. Your secret weapon, Ur-Gluk, happens to be a device that we have developed for a very specialized use, to protect important messengers, secret agents, and very important people in Planetary Government."

The Saturian stood frozen. In the space of a moment, he changed color at least three times.

"I don't believe it!" he howled, at last. "You are lying! You lie like all the rest of you human animals! The truth is not in you. You are trying to trick me—" There was more of it but it went off into shrill imprecations that were beyond the power of the communicator to translate.

Crane quietly let the girl sag to the floor. Now, for the first time, the Z-gun he held was revealed.

Ur-Gluk stared at the weapon the human held.

"I'll show you how the real Z-gun operates," the agent said.

He pressed the trigger.

The explosion that rolled through the room was at least five times as loud as had been the roar from the gun Ur-Gluk had used. Crane had aimed at the opposite wall.

The stout masonry there was ripped to pieces as a gaping hole appeared in the wall.

Outside was the Saturian night, the mists and the rain.

In bewildered consternation, Ur-Gluk turned his head to stare at the damage.

As the Saturian stared, appalled, Crane said, quietly.

"Drop the gun you're holding or you will get the next shot!"

As Crane watched, his finger ready on the trigger, Ur-Gluk's green color faded swiftly to a shade of white.

CHAPTER VII

UR-GLUK dropped the weapon he carried. It clattered on the floor as it fell and the Saturian collapsed into the nearest heavy chair, for once completely oblivious of any possible damage to his precious tail.

The second Saturian, who had helped carry in the communicator, was looking from the smashed body of his companion, to the hole in the wall. Then his beady eyes were roving toward Ur-Gluk. His color was almost white too. A shiver ran over him. Suddenly he toppled over in a faint.

Crane stared at him. "Hell on wheels, a Saturian fainting!" he thought. So far as he knew, the scaled superior life form that ruled the Ringed Planet had never been known to faint.

Ur-Gluk was making a tremendous effort to rally himself. Some color was creeping back into his hide.

"Shall we talk?" Crane asked softly.

"What about?"

"About this revolt you have been planning," Crane said.

"What revolt? Who told you that?" Angry green colored the alligator scales.

"You did."

"I did?"

"The instant we met, I knew you were trying to hide something. Also, Planetary Government has rather adequate sources of information. It is their job to know exactly what is going on all over the solar system. It is impossible to hide preparations for a full-scale revolt. You Saturians have been very carefully watched, for years."

At his feet, the girl stirred. Without relaxing his gaze from Ur-Gluk, he knelt. One hand held the Z-gun, the other sought her pulse. It was strong and firm. He heard a little

whisper of sound come from her. "Oh, I'm all right again! I've got my own mind back. He—he had me under some sort of hypnotic control that he worked by telepathy. Also, he could read my mind."

"Shhh," Crane whispered. "Control your thoughts. Think of something pleasant, maybe something that you want to do very much. That way, he won't be able to get anything important out of your mind. Also, never look him directly in the eye. Look between his eyes."

"What? You seem to know—"

"Actually, I don't know. I'm only doing a lot of guessing."

"But a guess may not be right!"

"Sometimes we have to work on a guess and a bluff. I'm doing exactly that right now."

"A bluff?"

"Sure. And you can help me."

"Me? How?"

"By putting up as good a bluff as I am doing! Both of us will know we are bluffing, but Ur-Gluk won't know it. Are you with me?"

He didn't look down at her and hence could not see the sudden gleam in her eyes, a look which said that she was with him, no matter where he went or what he did. He felt her fingers seek his free hand. He helped her to her feet.

UR-GLUK, watching with wary suspicion, again attempted control of her mind. The probing telepathic tendrils met a feeling that baffled him utterly. This girl was happy. She was thinking of something far away, some scene that Ur-Gluk did not begin to understand.

If she was happy, she could not be in danger. So Ur-Gluk reasoned.

The simple fact, which Ur-Gluk missed completely, was that this girl was falling in love. Nobody had ever succeeded in explaining to a Saturian

the meaning of love.

The color of the Saturian, which had been rising again toward green, faded back toward white. To him, love was beyond the understanding—and he was afraid of things he could neither understand nor control.

"My suggestion would be that you co-operate fully with Planetary Government in developing Saturn," Crane said.

"But you humans exploit us!" Ur-Gluk exploded.

"Yes," Crane answered, instantly. "But the exploitation is mutual, we give as good as we get."

"You lie!"

"Well, make up your mind which you would rather be: exploited the way humans exploit you—or blown to bits!"

Ur-Gluk wriggled in his chair, hating the ultimatum and the human who had given it.

"You have some gadgets that you probably think are important," Crane continued. "The modification of the Z-gun, probably some ships—no doubt you also have some carefully laid plans. What good are your ships and your so-called secret weapon when we know about them—?"

"That is exactly the question," Ur-Gluk snorted. "You and this girl know about them. *But does your government know?*"

"I assure you—"

"And you may be lying."

"Lying with this in my hand?" the human answered.

"You can kill me," the Saturian said. "But someone else will take my place. And, even if you kill me, you can not save yourselves." Triumph again was glittering in the alligator eyes. "While you have been talking here, I have been in contact with my second in command, by telepathy."

Crane gasped in sudden alarm.

"Your stupid human mind cannot

comprehend the use of telepathy. My second in command is gathering a squad. Even if you kill me, you will never succeed in getting back to your ship."

Ur-Gluk rose ponderously from his chair.

"So shoot! Shoot and suffer death yourself!"

No doubt, to the Saturian mind, Ur-Gluk was acting exactly like a hero. Crane, in this moment, had no trouble at all in understanding that under the hide of this half alligator there beat a heart that was fiercely loyal to his own kind.

"We've got to do something," the girl whispered. "We'll run for it. Out the hole you blew in the wall!"

"But—"

"He'll never catch us. If he starts after us, shoot him."

CRANE FROZE. Out of the corner of his eyes, he was aware that beyond the hole something was moving in the rain-washed Saturian night—an object that looked a little like a wandering, vaguely moving fireball.

Rousing memories, the sight sent chills over his body.

"God, no!" he gasped.

The girl had stopped. "What?" she said.

"That thing!" Crane said, pointing toward the hole in the window.

"All I see is a moving light—"

"If it's the wrong kind of light, that may be too much to see!"

Involuntarily Crane had turned his complete attention toward the hole. Ur-Gluk stopped hastily and scooped the fallen gun from the floor. Crane had forced him to drop this weapon. Now he had it back in his possession. He folded both hands behind his back, waited impassively.

The moving light came closer to the window. Crane stared at it. He felt his heart muscles contract, felt

the sweat begin to gather in the palms of his hands.

The girl glanced at him. "What is it? What's wrong?"

He did not answer. He hardly heard her speak. His eyes were glued on the moving light. It was coming closer and closer to the hole he had blown in the wall.

He saw it clearly now.

His heart almost stopped beating as recognition came.

An hour-glass of gleaming flame, half as tall as a man, alive with glowing colors. Not the green of the Saturian, not the tanned, honest brown of a human face, but red, orange, a vague pink, all flowing and shifting almost too fast for the eye to follow them.

"The flame beast!" Crane gasped.

Here it was again, the thing that had suddenly appeared in the ship out near the rings of Saturn. At one time, Crane had thought that perhaps this was actually the secret weapon of the Saturians. Now he knew that the weapon on which Ur-Gluk had placed his reliance was actually only a modification of the Z-gun.

Or had he been mistaken? Ur-Gluk had said he was sending for his second-in-command.

Was this flame beast the thing he had sent for?

It came through the hole in the wall, hung glowing in the air. It burbled softly, a sound that was a little like the purr of some strange cat.

The Z-gun in Crane's hand exploded. This was the ultimate weapon. At this close range he could not miss. Firing, he waited for the explosion.

The explosion came out in the Saturian night. The pellet from the Z-gun had passed completely through the creature.

Z-gun bullets needed to hit something to explode. This creature offered no resistance.

Against the flame beast, the Z-gun

was useless.

Crane stood paralyzed. Out of the corner of his eyes, he was aware of Ur-Gluk. The Saturian had turned dead white, the color of abject fear.

Crane knew that Ur-Gluk had never sent for this thing. The Saturian had not known it was coming. This flame-beast was definitely not something Ur-Gluk had been expecting. It moved toward Ur-Gluk.

The Saturian leader threw both hands over his head and bolted for the door. He did not try to open the door first, he ran straight through it, head-first. The crash of splintering panels, of breaking hinges was loud in the room.

The flame beast hung in the air. It seemed to be making up its mind.

Then, slowly and gently, it started to follow Ur-Gluk.

The room was empty.

"Quick, through that hole in the wall and out of here!" Crane gasped.

CHAPTER VIII

LIKE TWO harried ghosts, the man and woman slipped through the hole and into the rain-streaked Saturian night. Through a break in the clouds, the rings of Saturns were occasionally visible above them, millions of asteroids circling this grim and foreboding planet.

"The ship is this way!" Crane said. "Run!" He clutched her hand. Part of the time, he was literally jerking her along. She ran like a deer following him; when she slipped, he pulled her forward.

They were in a cluster of buildings hidden under the tall jungle trees. This was the secret Saturian headquarters and it had been well camouflaged. It was also well guarded.

Somewhere ahead of them a Saturian grunted. Crane stopped short, caught and held the girl. The Z-gun

was focused on the spot from which the sound had come.

"A sentinel," Crane whispered.

They waited, hardly daring to breathe. The sentinel moved on, following his beat. They slipped past behind him.

They were in the jungle. Behind them, in the secret Saturian headquarters, alarm bells were ringing. Crane thought grimly that perhaps the Saturians were having their hands full with the weird monster that had come from nowhere out of the dark night. There would probably be a violent uproar in this Saturian hide-out until that creature was repulsed. What was this creature that had come out of the night? At the thought, a startling idea occurred to Johnson Crane.

"Good Lord, is it possible that that thing actually is—" he muttered.

"*What* thing is what?" the girl said.

"I may have stumbled on to the real explanation of what that hour-glass of flame actually is. And also I may have discovered a way to defeat it!" Grimness crept into Crane's voice. He recalled how the hour-glass of flame had appeared in the ship and how it had acted, how it had started toward Captain Adams—and then had moved away from an up-thrust arm. In his mind was the glimmering of an idea as he fitted the factors together.

It was an idea that he could not even believe himself.

"We've got to get to the ship and blast off!" he said. "I've got to check this idea of mine against the files of Planetary Government."

"You seem to have access to a lot of information about Planetary Government," the girl said.

"Haven't I told you? I'm actually a secret agent, working for Planetary Government!"

"Heavens!" the girl whispered. "So am I!"

"No!" Crane gasped. "I considered the possibility, but I never once believed that two secret agents could run into each other, with each of them failing to recognize the other, but with both of them working on different aspects of the same problem!"

"If it's happened once in history, it has happened a thousand times!" the girl said. "If you don't believe me, I'll give you all the secret signs."

"I'll take you on faith for right now," Crane answered. "You can show me your secret signs when both of us have time. Right now we've got to get to that ship, and get away from here!"

A GAIN THEY hurried through the dark, rain washed jungle. Behind them, the growing uproar from the secret Saturian headquarters faded into the night.

They moved ahead until Crane caught a glimpse of a dim light. "The ship," he whispered. There was a ring of Saturian guards around the cruiser. He had come out through them, stating that his purpose was to call on Ur-Gluk, at that august creature's direct request. At the mere mention of Ur-Gluk's name, the guards had passed him through without question.

Would they pass him back through? Also, would they pass him through when he had a girl with him? He had gone out alone, now he was coming back with someone else. What would the Saturian guard captain think of that?

"We're going to walk up to that guard captain as if we owned him," Crane said. "If he doesn't let us through—"

"Bluffing again," Jane Trumbell said.

"Sometimes you've gotta do it," Crane answered. "Are you with me?"

"I'm with you." Her voice was

firm, it left no doubt that she was with this man in whatever he tried to do. Crane squeezed her hand. "Sometime remind me to tell you what a swell person you are," he said.

Together they slipped through the jungle, together they walked straight up to the big tent the Saturians had erected to shelter the captain of the guard and his staff.

The guard captain came out of his tent to inspect them. The inevitable communicator was already set up in a panel under the canopy of the tent.

"What is this?" the captain growled.

"This person got lost from the ship when we landed," Crane answered, gesturing toward the girl. "I am bringing her back."

"But I have no instructions—"

"Your instructions are on the way," Crane answered. "Ur-Gluk himself had ordered that she be allowed to return to the ship with me. She is in urgent need of adequate medical care...."

"Oh, Ur-Gluk. Yes, yes, of course. Pass on." The startled captain almost saluted as the two human walked past him.

"See how easy it is," Crane said. He glanced sideways at the girl, saw that she wasn't listening, that she had hardly heard him. Her eyes were dropping, her step was jaggling. Seeing her torn clothes, guessing at the terrific strain she must have been under for many days, he knew she was about to faint. Catching her in his arms, he ran toward the ship.

The guards on the alert there were human. They recognized Crane and admitted him without question. Still carrying the girl, he ran forward to the hospital rooms. There a young doctor was poring over a book on space medicine. His name was Gale.

"What on Earth have you got there?" Dr. Gale gasped, rising.

"A human woman. I think she needs rest and care. But that's your field. You take over."

"Sure thing. Put her here." Gale gestured toward the examining table in the next room.

"Take good care of her, doc!" Crane said as he went quietly out the door.

HE LEFT the hospital rooms with the comfortable knowledge that he had left this woman in competent professional hands.

"Where's the exec?" Crane shouted, at an ensign who was passing.

"In the control room, sir." This ensign had heard Crane's announcement over the loudspeaker when the PG agent had taken over the ship after the failure of Captain Adams. He knew his manners. "Shall I call him, sir?"

"Never mind," Crane said. He raced to the control room. Vaston was there with a group of officers. At the sight of Crane, he instantly stopped his conversation and came forward.

"We're ready to take off, sir," Vaston said. "Emergency rig."

"Don't startle me like this," Crane answered. "I didn't think you would be ready to take off for days yet. How did you work this miracle?"

"I turned the engine room over to the engineer," Vaston answered. "He worked the miracle. We have only been waiting your return and your orders."

"Orders? Oh, sure! Technically I am fully in command of this ship! I had forgotten it. Okay, Vaston, here are your orders. Take off as soon as possible!"

"That will be in a matter of minutes," Vaston answered. "Our friends outside may be a little surprised."

"Let them be!" Crane answered. If some of the Saturian soldiers got their scales singed in the backwash of an

atomic blast, it would teach them a badly needed lesson not to get too close to ships from Earth.

Vaston slid easily and comfortably into the control chair. He seemed to fit there, to belong in this spot. Under his fingers, switches closed almost of their own accord. Lights glowed. "Clear for take-off," Vaston said.

Crane, slipping down into the nearest chair now strapped himself in against the acceleration. He could almost feel the ship begin to pick up life as Vaston's orders went smoothly and efficiently into effect. Suddenly there came the soft, insistent throb of the take-off warning.

Probably every person on the ship held his breath. Starting slowly, but accelerating as rapidly as the human body could stand, the ship swung into the air. Possibly the startled Saturian soldiers tried to take measures to stop the take-off. No one on the ship knew, or cared.

The ship was in flight and the surface of Saturn was slipping swiftly away below them.

"Space radio has been yaking for you," Vaston said, when the ship was clear.

Crane roused himself. "Space radio?" He glanced over at his old position where he had worked as a radio operator when this ship had blasted off. It was filled now, by a youthful rating whom he vaguely remembered as being one of the other radio men. The kid seemed to be doing a good job.

"Lot of code stuff," Vaston said. "Stuff that isn't even in our code books."

"I see," Crane said. Planetary Government had one cipher that every agent was required to memorize and to carry around in his head. Probably this code that Vaston mentioned was actually this cipher. In any event, he had no time to bother to try to deci-

pher it. Unstrapping himself, he rose to his feet.

"I am going to use your radio equipment for a while," he said, to Vaston. "What I am going to talk about is the business of no other man in this control room."

"Right!" Vaston's eyes roved over the men in the room. "Personally, I am not going to be able to hear a word that is said in this conversation. I don't want even to think that one of you may overhear it."

His eyes lashed the men. Nods went around the room. Crane slipped into the chair that had been hastily vacated by the rating. His fingers went under the panel. The switch was still on, the circuits still functioning.

"Johnson Crane reporting."

ALTHOUGH this radio equipment was carrying full details on everything that was happening in the control room, Crane was in full charge of the situation until he reported in. This was standard operating procedure in the Planetary Government espionage system. Efforts might be made to reach him via space radio but this hidden communication system would not be used for that purpose unless the agent himself requested it.

Crane patiently waited for an answer. Even at the speed of light, time would be needed for this message to reach Planetary Government headquarters, to be acted upon, and for orders to be issued and to reach him here in the forlorn sky above Saturn.

Then a voice was speaking across the reaches of space.

"To: Johnson Crane. Space static has prevented reception from you of more than fragmentary reports. Impossible to evaluate your information as yet."

There was a pause. Crane, wondering desperately what was coming

next, could almost hear paper rustling as the operator on the other end shuffled through the reports in front of him. The voice went on:

"Additional data for your information and guidance. Freighter completely gutted by hour-glass of flame you describe. Two other ships report similar attacks near rings of Saturn."

"What?" Crane gasped.

The voice went heedlessly on.

"Some menace seems lodged in or near the rings of Saturn. Unable to evaluate nature or origin of this menace. Two cruisers, five destroyers, have been dispatched and are proceeding at full speed to you. You can expect radio contact with them in matter of hours. You will take charge of this fleet.

"You are also in full charge of entire operation.

"Find menace and destroy it."

The voice went into silence.

Crane sat staring at the radio panels. He was too stunned to speak.

He had expected help from Planetary Government. He had hoped to use their files to check his ideas as to the origin and the nature of the hour glass of flame.

Instead, he had been placed in full charge of the job of finding and destroying the menace.

It seemed to him in that moment to be a job beyond the ability of every human being alive.

CHAPTER IX

TWENTY-FOUR hours later, radio contact was made with the approaching fleet. The message was relayed to Crane down in the engine room, where he was driving the chief engineer and all the spare technicians on the ship mildly nuts working out the details of what they considered to be an utterly fantastic idea. Grimwald, the chief engineer, had snorted

his disgust a dozen times. But Grimald was working. So were all the others. When Crane gave orders to work, men usually obeyed them.

The message that contact had been made with the approaching fleet came down from Vaston. Crane went up to the control room to get the details. Vaston was wooden faced.

"Admiral Harkness reported. He asked our position. I gave it to him."

"Good," Crane said. "What else?"

Vaston's face became even more grim. "Admiral Harkness said he had lost one destroyer, and had had one cruiser crippled by excessive loss of manpower, by attack from scores of these flame beasts we are looking for."

CRANE digested the information in silence. He glanced at the view screens. There, displayed in all their brilliance, were the rings of Saturn.

"I want you to set all lookouts on the watch for an asteroid that moves under its own power," Crane said.

Vaston stared at him as if he did not believe his ears. "How can an asteroid move under its own power? They move in orbits."

"I know," Crane answered. "But I have a hunch that perhaps there is one asteroid somewhere near Saturn that moves under its own power."

"Sounds impossible," the exec said, softly.

"It may be," Crane said. "But just before we had our first contact with that hour-glass of flame, the lookouts reported an asteroid near us. Now, suppose that object was actually a space ship designed to look like an asteroid—"

"But why?" Vaston said.

"To conceal it, for one reason. If you wanted to find a hiding place for a space ship in an asteroid belt, what better way to do the job than to make

the ship look like an asteroid?"

Vaston's eyes were suddenly thoughtful. "I grant that part. But who would want to find a hiding place in an asteroid belt?"

"I don't know *who*, I just know that apparently *something* has appeared in this asteroid belt, something that looks like an hour-glass of living flame. Since I don't know much about the real nature of this hour-glass of flame, I can only guess as to its motives and its purposes. I do not doubt it has its own secret motivations. However, my orders are to find and to destroy it. And the thing I want you to do is to search for an asteroid that seems capable of moving under its own power, and which may be the secret hiding place of the flaming hour-glasses."

"I'll do it!" Vaston said. Replacing the puzzled bewilderment in his eyes was a quick eagerness. "It may be a hell of a job to find one single asteroid in the millions that are here, but we'll find it, if it exists." As he finished speaking, Vaston began to issue orders to the lookouts.

A few minutes later, the radio was calling again, for Crane. This time the message was from Admiral Harkness. "My orders are to report to you. I am so reporting. We will meet you at your instructions. Meanwhile, I wish to report the conclusion of my medical examiners in re the men killed aboard both the cruiser and the destroyer."

"Go ahead," Crane said.

"This is it! The flaming creatures that came aboard the ships, seemed to kill the crew by devouring the life force within them. My examiners say there is a subtle force in every man that keeps him going; they also say that this force is electrical in nature. The flame creatures devour this force. I pass that on to you for what it is worth—"

"It's worth plenty," Crane answered. "We will proceed to a meeting as soon as a course can be plotted. In the meantime, there is a possibility that these flame creatures may be hiding in a space ship designed to look like an asteroid. My orders are to blast out of the sky any asteroid that seems to appear near you and to be moving under its own power."

Crane signed off. He knew he left a puzzled Admiral out there under the rings of Saturn. But he also knew that this Admiral would carry out any orders given to him. Crane hastened back to the engine room.

THE SPACE suits were already coming out of the special ovens that had been rigged up. The ovens had been set up in such a way that each space suit passed near the atomic engines in operation. Each suit thus received a slight charge of radioactivity. Back on Earth, radio-active isotopes had been manufactured in this way ever since the discovery of atomic power. Space suits normally were designed to protect their wearer not only from the cold of space but also from the effect of dangerous radiation.

These suits, however, had been put through a process that made them slightly radioactive.

Dr. Gale looked up from the adapted Geiger counter he was using on each suit as it came out of the oven. "It's my guess that a human can wear these suits for thirty days with no danger. But why are you having them made radio-active?"

"On the strength of a hunch and a prayer," Crane answered. He grinned at the girl who was helping Dr. Gale. Jane Trumbell looked wan and shaken but she was operating under her own power. She smiled back at him.

Crane moved on to the bench where

the technicians had assembled and were already testing *the* weapon.

Improvised from parts of the ship's stores, the weapon was a crude, clumsy-looking gadget that looked a little like a sub-machine gun made by amateur gunsmiths. However, this weapon did not fire slugs—it fired puffs of smoke.

Crane, his face grim, watched the tests. The weapon was mounted in a test rack and it was aimed at a target, a radiation counter. One of the technicians pressed the trigger. Out from the flaring muzzle of this odd gun shot a hard-driven ball of smoke.

The ball of smoke hit the radiation counter. The meter jumped over into the red, then fell back as the smoke passed it.

"Radio-activity of the smoke discharge, point nine three seven," a technician said to Crane.

"Good," Crane said. Humans could stand indefinitely this amount of radio-activity. Jane Trumbell moved up and stood beside Crane.

"Radio-active space suits and a gun that shoots radio-active smoke?" the girl said. "I wish I knew what you are trying to do!"

"I wish I was sure of what I am trying to do," the PG agent answered.

Suddenly the call to battle stations sounded through the ship.

Crane snatched the weapon from the test rack. "Make a dozen more like it, as fast as you can!" he shouted. The girl following him, he ran for the control room.

Before they reached it, they heard the thud of an atomic cannon firing.

In the control room, Vaston looked up as they entered. He pointed toward the view screen. "There's your damned asteroid!" he shouted. "We're trying to knock it out of the sky!"

Looming in the view screen was

what looked like a tremendous chunk of jagged rock. There were thousands like it wandering erratically through and around the rings of Saturn.

"We missed it with the first shot," Vaston said. "Ah, there goes the second!"

Again the thud of an atomic cannon firing rolled through the cruiser.

ON THE view screen, they saw the explosion that followed. The bursting charge struck the asteroid a glancing blow. The explosion that mushroomed up was so bright it hurt the eyes even when watched through a radar view screen.

The asteroid rolled under the impact of the explosion. Jagged chunks of rock flew away from it. Heat in the intensity of millions of degrees had been generated against the surface of this wandering fragment of what appeared to be a tremendous chunk of jagged rock. Volatized stone spurted outward in molten drops of fine spray which cooled instantly in this airless space to microscopic mist.

Crane glued his eyes on the view screen. Without knowing it, he was holding his breath.

Was this the asteroid he had thought existed here? Was it the hidden source from which the flaming hour-glasses sprang? Or was it just a chunk of rock?

Something burred in the control room.

Jane Trumbell screamed.

Crane jerked his eyes away from the view screen.

There, in the control room, was an hour-glass of living flame. How it had gotten there, he did not know; apparently these creatures possessed some sort of ability to slip into another dimension and thus enter a closed area without the necessity of going through an opening. All he knew was that it was there. And that

it was moving straight toward him.

He jerked up the muzzle of the improvised weapon that he carried, pressed the trigger.

The ball of smoke shot out.

It struck the exact center of the hour-glass of flame, struck where the vague orange color was turning into a glowing spot of deepest red, struck what might well be the heart of this monstrosity.

As if the smoke did no damage whatsoever, the flaming hour-glass kept moving toward Crane. The sound that came from it jumped a notch up the scale as the smoke hit it, there was no other indication that it had been touched.

Crane's dazed thought was that the smoke had only made it angry!

He felt again the electric tingle pass through his skin as the creature neared him. He caught a glimpse of Jane Trumbell's white face beside him. He fired the second shot.

Again the ball of boiling smoke shot into the heart of the creature.

What happened then took place almost too fast for the eye to follow.

The heart of glowing red inside the creature seemed suddenly to swell to larger size. Then it collapsed to a pin-point of intense scarlet.

The burring sound changed. A split second earlier, it had throbbed with anger. Now, somehow, it had a note of pain in it as if this creature had been hurt.

The hour-glass of flame was no longer moving toward Crane. It was hanging in the air as if somehow it had lost the power to move of its own accord.

Crane fired the third shot.

Again the ball of smoke struck home. The burring sound roared up again. The creature moved. Like a stricken wild animal, it dashed madly around the control room.

The burring sound leaped a final

notch up the scale.

The creature vanished.

In the control room the only sound was the frightened breathing of startled men.

Crane thought in dazed relief: "Those damned things actually can't stand radio-activity."

In that instant, he knew his wild hunch had been correct, knew also that he had found a weapon with which to combat these hour-glasses of living flame.

He had won! The thought was like a tonic to his mind. Exultation leaped up in him.

"Look!" Vaston yelled.

Crane turned again to the view screen. There, plainly displayed, was the asteroid.

"It's moving under its own power!" Vaston said. "It is a hidden space ship!"

Plainly visible on the view screen, the asteroid was righting itself. The force of the atomic explosion had sent it rolling. It was rolling no longer. Instead it was obviously under control.

And it was fleeing from the ship!

Crane breathed a sigh of pure relief.

The thud of a cannon rolled through the cruiser. The shell exploded far behind the rapid-accelerating asteroid.

At the explosion, the asteroid suddenly took up a course that any experienced space cruiser executive officer would instantly recognize.

"Evasive action!" Vaston yelled.

Crude and cumbersome in many of its movements, the asteroid was dodging and ducking, trying to avoid those atomic explosions that were taking place behind it.

"Pursue that asteroid!" Crane yelled. "Don't let it get away."

Vaston, grimly busy with the control switches in front of him, was al-

ready changing the course of the ship.

A white-faced junior officer burst into the control. "Hey! There's another one of those flame beasts here in the ship!"

CHAPTER X

OUTSIDE the door of the control room a man was down. He lay without moving on the plastic covered steel floor.

Hunched over him, feeding off him, was another hour-glass of living flame.

Radio-active smoke boiled from the gun in Crane's hands. It struck the creature again and again. The flame beast lifted, tried to move toward the PG agent.

Another smoke ring struck it.

Crane watched the hour-glass of living flame try to flee. In his mind was the grim thought that this one was not going to escape, if he could do anything to prevent it. The gun puffed its balls of smoke, innocent-looking balls they were to a human being, but to this flame beast, they were nearly as deadly as the slug from a Z-gun was to a man.

The flame beast hung in the air. A violent surge of colors ran through it. Suddenly it was drifting, floundering, falling. Something had gone wrong inside of it. It struck the floor of the corridor, hung there an instant. The colors in it faded, faded, faded—and were gone.

A tracery of lines as fine as spider webs remained upright for a moment. Then this web faltered, fell in upon itself. There remained upon the tough plastic floor a web of moisture.

Johnson Crane was probably the first man to see one of these creatures die. Now he knew one fact that he had never really known before: these flame beasts could be destroyed.

On the floor, the man stirred and tried to sit up. All he could do was wave his hand. Some vital energy had been sucked out of him. Getting it back would be a problem for Dr. Gale.

"Take it easy, fella," Crane said. "Just lie there. We'll get to you as soon as we can."

Crane raced again to the engine rooms. For an instant, he was almost afraid to enter. Suppose he should find these flame beasts in here too? Shoving into the engine rooms, he found his fears were without foundation. Men in here were working. So near these atomic engines, no hour-glass of flame would ever appear. To the flame beasts, this engine room was "hot."

Dr. Gale looked up from his inspection of the space suits. "Man up there in the corridor outside the control room who needs your help," Crane said.

The medico was gone almost before the words had left Crane's mouth.

"I want five volunteers."

Crane got them instantly. "Into space suits," he ordered. In a matter of minutes, he had five men inside the suits.

"In these suits, you will be safe from the flame beasts," he said. Arming them with the stubby-smoke guns, he stationed them around the ship in positions where a sudden call for help from any quarter would find one of these men ready to answer it instantly.

"Now, let another flame beast appear!" he thought.

The ship was accelerating and changing course. The thud of the atomic cannons was sounding again.

CRANE ENTERED the control just in time to see one of the atomic shells strike the fleeing asteroid.

The explosion was cataclysmic.

The view screen revealed a vast mass of machinery of some kind spewing outward from the center of the asteroid. It also revealed the astonishing fact that the huge chunk of jagged rock was a real asteroid.

"They bored into the center of an asteroid and installed driving machinery!" Vaston gasped.

"They'll never bore into that asteroid again!" Crane answered.

Apparently the shell had penetrated to the core of the asteroid. The great chunk of rock was torn into hundreds of pieces. Leaping out from it, flashing upward through airless space, were—flame beasts. They were trying to flee from an atomic explosion.

That explosion not only generated millions of degrees of heat, it also generated the whole gamut of "hot" radiation that goes along with an atomic explosion, the alpha, beta, gamma rays, along with many others. Some of these rays, possibly all of them, were a deadly poison to the flame beasts.

The vast holocaust in the sky of space revealed the flame creatures dying by the hundreds. They tried to flee. Who can flee from the blast of an atom bomb?

In the control room of the cruiser, the awed humans watched the sky of space light up, watched the flame creatures die, watched the holocaust die down.

"That's that!" Vaston said. "Now to dodge the shower of fragments from that explosion."

Already the meteor warning bells were ringing. The ship, which had been pursuing the asteroid, swung away from the collision course with the fragments. The clanging of the warning bells died into a quiet murmur.

"Do you suppose that was the *only* asteroid those flame beasts have taken over?" Vaston said, softly.

Crane grimaced. "Let's not think about that right now," he said.

The ship turned quietly in space. For an hour, the crew rested. Food was served. Down in the engine room, more space suits were made slightly radio-active. More of the improvised weapons were made ready. Men were wary and watchful and restless. They thought the flame creatures had been conquered. But who could be sure when dealing with some totally unknown life-form such as these weird hour-glasses of flame?

The crew was suddenly aware that space was just outside the ship. The kind of space that leered at men. They were aware that they were under the rings of Saturn—where almost anything could happen. Men started to whistle, and stopped short. Laughter came up in sudden bursts, then was still.

The ship swung around to make her rendezvous with the approaching fleet.

Then space radio was again yapping for Crane.

"Harkness reporting. We are being attacked by three asteroids. Situation desperate. Must have immediate help."

Before Crane could answer, the voice coming over the radio went into sudden silence. He snapped a question back across space. There was no answer.

In the flagship of Admiral Harkness, the transmitter had gone off.

What had happened to the fleet? No one knew. With the fleet's radio out of operation, there was no way to find out.

"We're on course to meet them," Vaston said. "We ought to make contact almost immediately." He swung the view screen to the forward radar equipment, scanned the vastness of space for a sight of the approaching vessels.

Minutes passed while the cruiser was accelerated. The minutes grew into an hour.

"There!" Vaston said. "I caught a glimpse of the ships."

Crane and the executive officer strained their eyes staring at the view screen. Pips of light were visible. They enlarged rapidly, became two destroyers and a cruiser.

Three other pips of light became something else, became three jagged chunks of rock.

Three asteroids in motion.

CHAPTER XI

TWO OF THE asteroids were small, not much larger than destroyers. The third was larger than the biggest space wagon that Planetary Government had ever put into the skies.

The asteroids were circling the fleet. The destroyers and the cruisers were firing, sporadically. Out in space in the vicinity of the three asteroids, atomic explosions were taking place. The aim of the gunners was erratic, the explosions were missing their targets.

"Look at that!" Vaston whispered.

As the cruiser neared the scene of battle, other objects were becoming visible.

Circling what remained of the fleet were hundreds of the flame beasts. Like wolves around helpless prey, the hour-glasses of flame were swinging in swift orbits.

"They're too close in for the ships to fire upon them!" Crane said. "Also, they're too close to the vessels for us to fire. What in the hell are we going to do now?"

"We can fire on the asteroids!" Vaston said.

"Done!" Crane shouted. "If we can't get at the flame beasts themselves, we can at least destroy their nests."

From the nose of the cruiser, in response to Vaston's order, came the thud of an atomic cannon. It was aimed at the nearest asteroid. It missed. The second hit.

The nearest asteroid exploded in a blinding burst of glittering flame.

"One down!" Crane said. Two more were left to go. But the first shot that had destroyed the nearest asteroid had been a lucky hit and he knew it. What about the other two? What about—?

The PG agent was staring at the screen. As if the explosion of the asteroid had been a signal, the flame creatures had left off their circling of the helpless cruiser and the two destroyers.

They had started toward the new ship that was approaching. They seemed to recognize in it a source of danger.

"By God, when they started toward us, they made a mistake!" Crane shouted. "Now we can get at them. Fire into that swarm as it approaches."

As long as the flame creatures had remained close to the remnants of the fleet, they had been safe from fire, both from the helpless vessels and from the cruiser.

Again the atomic cannon thudded. This time the shell exploded in the midst of the approaching swarm of flame beasts. An atomic mushroom boiled upward and was dissipated. Wild spots of flame gyrated through black space.

"Got part of them!" Vaston said. "The rest are still coming."

The flame creatures seemed to move with fantastic speed. Before a second shot could be fired into them, they had flashed in from space and were circling the cruiser.

Like balls of witchfire appearing out of nowhere, they popped up inside the ship. Alarm bells began to

ring.

THE FLAME creatures had been having things pretty much their own way inside the vessels of the fleet. Appearing inside the hull of this cruiser, they expected to find the same situation: helpless, frightened humans who fled screaming before them, men who did not understand them and were afraid of them, running men, men paralyzed by fear.

Swirling inside the ship, they danced up and down the corridors.

Shouts of fighting men answered them.

"Get that damned fire-ball over there."

"Got him!"

"There's another one."

"I'll take care of him!"

Instead of finding running men, the flame creatures met puffs of radio-active smoke. In that radio-active smoke was death.

Two of the flame beasts appeared in the control room. Jane Trumbell, looking very grim in the smallest space suit aboard the ship, took care of one of them. She fired balls of radio-active smoke. The flame creature swirled away from her, and vanished. "I can lick 'em too!" she yelled.

Crane was at work on the second flame beast that had appeared in the control room. It vanished.

In the control chair, the wooden-faced Vaston took a new grip on life. Instantly he began checking all positions on the ship.

"All clear here."

"No flame creatures in the after-section."

"Two destroyed in the nose."

Excited shouts answered Vaston's queries. All reports added up to the same answer. "All clear!"

The cruiser was clear of the menace. But outside, in space, the flame

creatures circled, wary and watchful, as if they were considering some new plan of attack.

In the far distance, the smaller asteroid was changing course. Vaston was following that shift of direction with a wary eye. Shells were exploding around this asteroid but as yet none had taken effect.

"That son-of-a-gun looks to me like he is getting ready to ram!" Vaston said. The ragged edge of nerves frayed almost to the breaking point sounded in the exec's voice. He moved the button which put him into contact with the engine room. "Stand by for fast evasive action."

"Ready!" Grimwald's voice came back.

On the control panel in front of Vaston, a signal light glowed red: the stern lookout at the radar set calling for emergency attention. Vaston snapped the view screen to that position. The voice of the lookout came quickly. "Fleet coming up from Saturn!"

Crane heard the words without realizing their possible meaning. He turned quickly to the view screen.

There, visible against the dark bulk of the gloomy planet that lay so far below them, were rapidly enlarging pips of light. Five ships, coming upward.

"Those are not ships of our space fleet!" Vaston whispered.

"But what other ships could possibly be here?" Crane gritted. As he asked the question, the answer popped into his mind. "That damned Ur-Gluk!"

"They're Saturian ships all right," Vaston spoke. "But where in the hell did the Saturians get ships? Those are war craft! They're not permitted to have fighting vessels. The treaty they made decided all that long ago."

"They didn't keep their treaty!" Crane answered. "Ur-Gluk has been

building ships, in secret. He has been planning an attack, to wipe out human control of Saturn. He has picked the worst possible moment to launch his blow!"

Of all the things that could possibly have happened, this seemed to be the worst. Circling outside the ship were the flame beasts. Off in the distance an asteroid was being maneuvered to ram. The rocky mass would tear through the fragile hull of the cruiser like a thrown stone going through a pane of glass.

Back farther still was a huge asteroid, the heart and the core of the flame creatures.

THE EARTH fleet lay helpless even to protect itself. The ships were barely under way. Firing had stopped. The vessels moved as if the only guiding force within them was the automatic equipment that kept them on course even after their human operators had all died or had fled precipitately from the controls.

In this crisis, the Saturian fleet was attacking.

"The asteroid is the source of immediate danger!" Crane spoke from between dry lips. "It will reach us before Ur-Gluk comes within firing range. Concentrate on the asteroid."

Vaston turned the view screen again. His face grew grim as he watched. The asteroid was looming bigger with each passing moment. There was no longer any doubt but that the creatures manning the driving machinery inside of it intended to ram.

The fore-guns were firing at it. A shell grazed it.

It kept coming.

Bigger and bigger it loomed on the screen. It had been the size of a baseball, then it was as big as a basketball. With tornadic speed it became the size of a mountain.

Vaston waited.

The asteroid loomed even bigger on the screen.

Very gently the executive officer pressed the button that changed the course of the cruiser.

The ship swung aside.

There was a rending crash as the rocky underside of the asteroid scraped the hull of the ship. The cruiser shuddered, righted herself.

The asteroid went past.

"I had to wait until it was almost too late!" Vaston whispered. "If I shifted course too soon, the asteroid could have shifted to meet the new course. Now, it's going away!" His eyes glittered.

A target that was going away was a target that even the poorest gunner could hit. Somewhere in the ship, an atomic cannon was being ranged and aimed. It fired, a single shot.

This time the shell struck home.

Space shuddered under the impact of the explosion. From the core of this asteroid a mass of driving machinery spewed out. Again, flame beasts tried to flee from an atomic explosion.

Crane wiped sweat from his face, grinned at Vaston. "You're a top-flight skipper, old man. You really did a swell job of handling that situation. Now for Ur-Gluk."

The Saturian fleet was coming up fast. The cruiser turned, took a deep breath, and bared her fangs again. She had fought, and fought again, and now she was as ready as utterly tired men could make her to fight another battle.

In the lead of the Saturian fleet was a big flier that was apparently the flag-ship. From its bow an explosion jutted.

"Firing at us!" Vaston said. "They started this fight." His fingers moved to the firing button of the cruiser.

"Wait!" Crane whispered.

OUTWARD from the Saturian fleet, the shell they had fired had exploded. It was not an atomic bomb, there was no mushroom of white smoke rolling out to the four corners of space.

It was a simple chemical shell, exploding in a shower of green sky-rockets.

"That's a signal!" Vaston said. "They're not firing at us, they're signalling to us."

"It's not possible," Crane breathed.

"Look for yourself! There are three green rockets. They came out of that shell. In the code of the Interplanetary Space Ship Rules, what do three green rockets mean?"

Crane knew what they meant. They spelled out these words:

DO YOU NEED HELP?

Three red skyrockets fired from a signal shell was a distress signal set up to be used by space ships whose radio equipment was out of order. Three green rockets constituted an offer of help.

Crane simply did not believe the evidence of his eyes. He sprang to the radio set, snapped the transmitter and receiver to the wave band assigned to Saturian vessels.

A voice was already coming in over the speaker.

"We wish to fight on the side of our human brothers. Tell us what to do!"

It was the voice of Ur-Gluk, working through a communicator in the Saturian ship.

"Great God in Heaven!" Crane breathed. "He is not only offering to help us but he is calling us brothers!"

To him, this was a miracle almost beyond comprehension. The last time he had seen Ur-Gluk, the Saturian had been fighting his way through a door to escape from a flame beast.

Beside him, the girl whispered: "I told Ur-Gluk that what we wanted

was peace and harmony. He has finally realized that it is best for all of us to work together!"

Crane turned startled eyes toward her. In his mind was the thought that perhaps Jane Trumbell had actually influenced the Saturian. But it would take more than the words of any human to make Ur-Gluk change his mind.

However, if Ur-Gluk was actually offering help, the only thing to do was to accept it. This was no time to worry about Saturian motives. Crane turned to the radio.

"We will point out an asteroid to you. Help us pursue it. Help us destroy it."

"Asteroid?" Even over the communicator in the Saturian ship and over the radio, the tone of Ur-Gluk's voice indicated that the Saturian was wondering if the human had taken leave of his senses. Everybody knew that asteroids were simply chunks of worthless rock. Why pursue one of them? Why try to destroy such a thing as an asteroid?

"It is the hiding place of the flame beasts," Crane said. "I don't know how they did it, but they actually exist inside asteroids. They have installed driving machinery of some kind—"

"The flame beasts!" Ur-Gluk's gasp was clear. "That's different. If they are concealed inside an asteroid, we will help our human brothers destroy it."

"Then go to work!" Crane shouted. He turned back to Vaston. The exec had already switched the view screen to the big asteroid.

"It has changed course!" Vaston said. "And look, the flame beasts are leaving the ship!"

THE SCREEN clearly revealed the flight of the flame creatures. Leaving off their circling of the cruis-

er, they were hurrying toward the asteroid, vanishing inside it. Whether they had given up the attempt to enter this perplexing cruiser, or whether some sudden call for them had gone out from the asteroid, was not known.

"Both the asteroid and the flame beasts are running!" Vaston shouted.

Swiftly, he changed the course of the ship, set it to follow the asteroid. Again the thud of the firing cannons came through the vessel.

Now it did not fight alone! Ranging beside it were the ships of the Saturian fleet.

To Johnson Crane, the knowledge that they did not fight alone was suddenly a very heady feeling. Ur-Gluk had meant his offer of help. Ur-Gluk was proving himself. The Saturian vessels were also firing on the asteroid. There was incontrovertible proof of Ur-Gluk's intentions.

Looking around him in the control room, Crane suddenly realized that he had had help from a thousand other sources too: from Vaston, sitting there in the control chair like a wooden-face image; from the technicians, from the radio operators, even from this girl. Down in the engine rooms was another man who had helped tremendously—Grimwald, the chief engineer.

The feeling came over him that he was not alone in this battle in the Saturian skies, had never been alone. Always there had been others with him, working on the same problem.

"Look!" Vaston whispered.

The view screen revealed shells striking the asteroid. It could take punishment, lots of it. It was so big, so tremendous, that even an atom bomb could not smash it.

But what one atomic explosion could not do, a dozen could. Suddenly, through some crevice or weak spot, a shell went home.

The explosion that took place out

there under the rings of Saturn was a flaring column of mushrooming flame miles in extent. Inside the asteroid, some energy source used by the flame creatures had been ignited. The combination of the explosion from this energy source and the might of an atom bomb, created a flare of energy so vast and so tremendous that it was caught by alert astronomers back on Earth.

The explosion caught the cruiser, twisted and turned it. Vaston righted it. The impact also caught the vessels of the Saturian fleet. For the space of minutes there were wild maneuvers in space as the ships turned and twisted to dodge each other.

Then the ships were again in order.

Where the asteroid had exploded, only droplets of fading mist remained in the void.

"That's that," Crane said softly. "If there are any more of those flame beasts here inside the rings of Saturn, we will know how to deal with them."

"I wish to hell you'd tell me," Vaston said. "I've seen you make space suits radio-active, I've seen you use puffs of smoke to run those blasted ghosts lights out of the ship. I've had the impression that you were using radio-activity against them."

"And so I was," Crane answered. "Radio-activity is the one thing they cannot stand. I don't pretend to know how or why it works this way, but radio-active energy is a deadly poison to them."

"All right," the dazed Vaston said. "But how did you discover they couldn't take radio-active particles?"

"When the first one appeared in the control room, Captain Adams slapped at it with his arm. The creature ran from him. I saw the numerals of his wrist watch flare as he slapped at the creature. Those numerals were coated with luminous paint. The luminosity

in this paint is actually a very mild form of radioactivity. When I leaped to help the man who was being devoured by the creature, I also slapped at it with the arm that held my wrist watch. Again the numerals flared. From that I made a wild guess—"

"Whew!" was all the confounded Vaston said. But the look he gave Crane was one of the deepest admiration.

THE MEETING that took place later in the control room was historic in many ways. Admiral Harkness was there, wan and shaken. He made his report first. "We finally discovered that the only place on our ships where we were safe from the flame beasts was the engine rooms. We left the ships under automatic control and fled to the engine rooms for safety. Then, when the flame beasts left, we came out again."

"Good thinking," Crane said. The admiral looked relieved. "I intend to include a recommendation for you in my official report." The agent turned to Ur-Gluk.

The Saturian talked volubly over the communicator. "That flame beast almost destroyed our headquarters. I never saw such a scene of confusion in my life. When we finally managed to get rid of it, I made my decision instantly: that in the future I would fight on the side of my Earth brothers."

He looked defiantly at Crane as if he expected the human to deny him this privilege. Crane glanced sideways at Jane Trumbell. She had thought that it was her argument for peace and harmony that had influenced Ur-Gluk. Probably the Saturian had been influenced by what she had said but what had influenced Ur-Gluk far more was the flame beast. Ur-Gluk had actually been scared into cooperation.

The girl, however, did not realize this fact. Crane grinned at Ur-Gluk.

"A very wise decision. I imagine you have given up all plans for a revolt!"

A positive shudder passed over the Saturian. "But yes. But definitely."

Ur-Gluk spoke as if he meant every word he said. His manner indicated that if given time he would say a lot more words on this subject. Crane did not give him time. "How did you happen to come out into space to help us?"

"Our radar scanners reported a battle of some kind between Earth ships and the flame beasts was in progress. I promptly issued orders for my fleet to move to your aid. Planetary Government will no doubt accept my motives in this matter?"

"I cannot speak for Planetary Government but I am almost certain they will accept your change of heart. All they want is peace."

"Peace—that is what we Saturians want too!" Ur-Gluk said firmly. Some of his nervousness left him. His color came up the scale to a healthy, shade of green.

"What about you?" Vaston spoke.

Crane shrugged. "I imagine Planetary Government will have some orders for me very soon."

IT WAS a shrewd guess. The orders came through. "Johnson Crane and Jane Trumbell will report to Earth at their convenience to make a fully detailed report of this situation."

The voice coming across space was that of a tired man reading an official order. Suddenly it lost a little of its tired feeling. A glow crept into it. "This is entirely unofficial, of course, but the idea seems to have got around here that perhaps you and Jane Trumbell would like to make your trip back

to Earth part of a honeymoon—"

"Honeymoon!" Crane gasped. The thought of such a thing had never entered his mind.

The girl was speaking. "You heard what the man said. You didn't think you were going to get away from me without a honeymoon, did you?"

In her eyes was a glow and a sparkle, "Nor without this, either."

Her lips were close to his own. His face went down to meet them. Before the rather startled eyes of the assembled group, he kissed her.

Looking over the girl's shoulder, he saw that Ur-Gluk was watching him. Very gravely, he winked at Ur-Gluk. The Saturian looked startled. Crane sighed. The ways of the human race, in matters of love, would probably always be beyond the comprehension of a Saturian.

And sometimes, he thought, they were beyond the comprehension of a human too. He had not known he was in love with this girl. But she had known it. The instant she had mentioned it, he had realized that it was true.

With that knowledge, he was well content.

THE TALE is still told, out in the lanes of space, of the fire beasts that either evolved in the rings of Saturn, or came into that area from the vast gulf of space that lies beyond. In the limitlessness of space, there is room for all forms of life. The problem of the exact origin and the real nature of the flame beasts is as yet unsolved.

But sometimes when a meteor flames across a radar screen, lookouts on lonely freighters are a little startled, a little shivery, as they wonder if again they have met one of the flame beasts of the void.

THE END

ORGAN-PIPE LIGHT

By
CLYDE MOORE

THERE SEEMS to be almost a scientific obsession concerning itself with the accurate velocity of light. "C"—as this physical constant is called—is one of the most important numbers in all scientific work. It is no wonder then that scientists are breaking their backs in an effort to know it with some degree of accuracy. Up until recently, the best measurements put "c" as 186, 272 miles per second. But a number of new determinations made with new approaches seem to indicate that this is in error by a negative ten miles per second or so.

The newest figure, 186, 280 miles per second comes from the work of scientists at Stanford. Their work has refined the answer to within better than .0002 per cent! Such accuracy is well-nigh incredible, but effort will be made to make it even more remarkable as skill with the new apparatus improves.

The new methods of determining the velocity of light do not depend upon mile-long vacuum tubes etc. In fact, they do not even employ light. Instead they use radio waves, which are light of extremely long wave-length. The velocity is the same however.

Also the new methods employ techniques almost as old as man is—in some respects. They depend upon the familiar phenomenon of resonance. It is a well-known fact that if you hold a vibrating

tuning fork over a tube whose length can be varied, you will get a strongly reinforced sound when the tube is one-half wave-length long (if both ends are open) or when it is one-quarter wave-length long (if one end is closed). This sympathetic vibration technique or resonance is familiar in most musical instruments.

What can be done with sound can also be done with radio waves. Short radio waves will resonate in a metal cylinder when the dimensions of that cylinder are of the same order as the wave-length of the exciting radio waves. The Stanford scientists used ten-centimeter ultra-short waves which they fed to a resonant "cavity" whose dimensions were measured with extraordinary accuracy down to hundred thousandths of an inch. When resonance was attained, the wave-length of the exciting radio wave was thus known with excellent accuracy.

From the relationship, velocity equals frequency times wavelength, the velocity of radio waves (light!) could easily be determined. So precise were these measurements that even slight roughnesses in the resonant tube were allowed for.

It may be said that we're gradually isolating the speed of light. It's been a slow process over the last hundred years, but each experiment puts it closer to fact. In time we may even know it to seven or eight figures. Brother, that's close!

INSTRUMENTS OF MAGIC

By LEO PATTERSON

ANY VISITOR to our Earth from a distant planet or any traveler in time, can get a better picture of what our civilization can do by studying our measuring instruments. No other gadgets better indicate the abilities of a people. For invariably the tools which answer the question, "how much?" are the most important tools to a society.

Instrumentation has reached an incredibly high peak these days thanks primarily to electronics. We don't have to repeat the innumerable inventions and devices which have stemmed from this science and which have changed our whole way of living. It is sufficient to know that in most cases they are almost always concerned with measuring some quantity, pressure, temperature, length, color, flow, or what have you.

A couple of new inventions are worth considering, primarily because they are generally indicative of the new science which measures things without disturbing them. Consider the age-old prob-

lem of measuring the rate of liquid flow. If you want to know how much water is flowing through a pipe, you can use a simple water meter which is essentially a motor which turns at a rate proportional to the flow of the water. The only trouble with such a gadget is that the meter interferes with the very flow it's measuring. Now they do it with a sound beam!

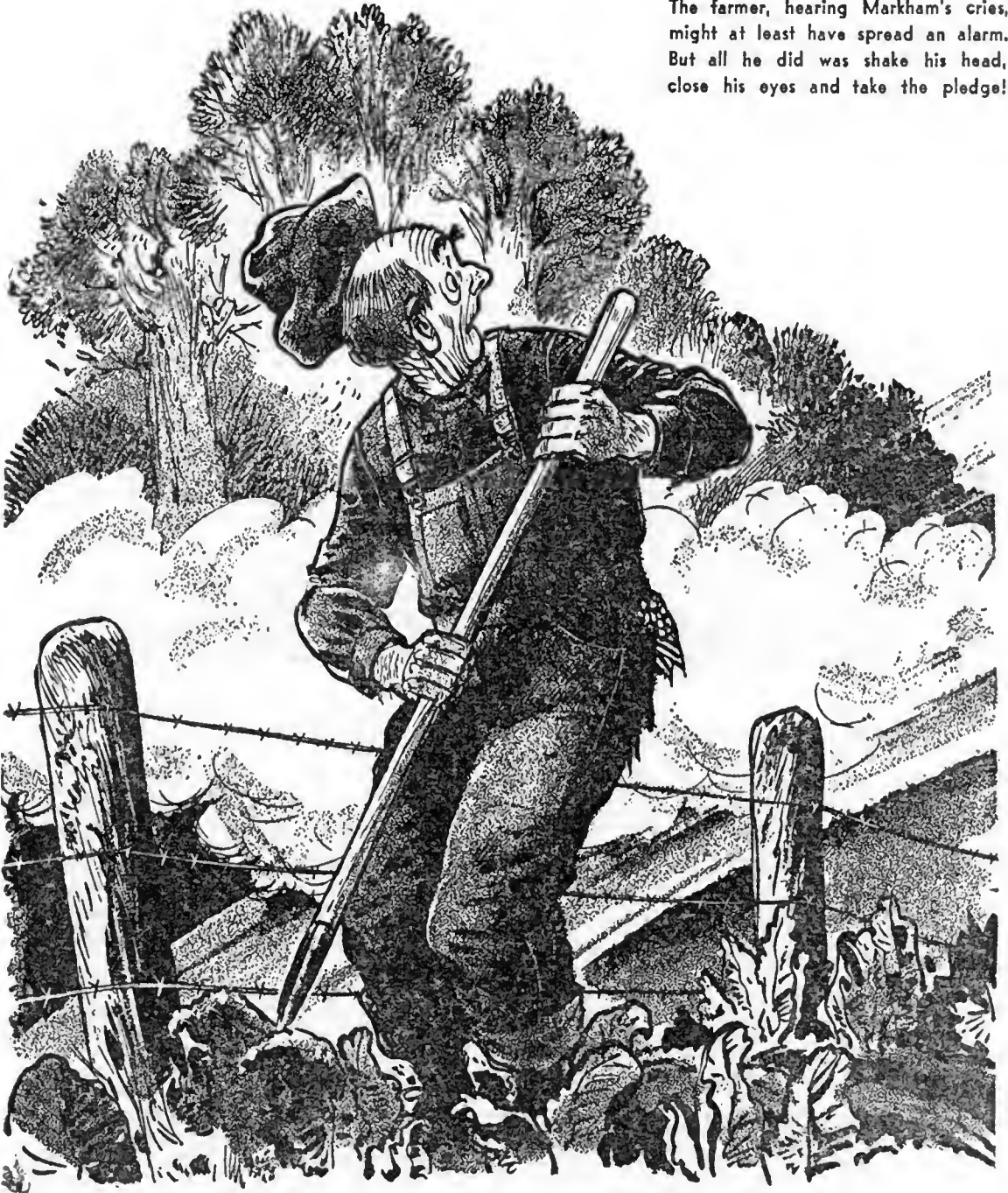
A super-sonic wave speeds through the liquid, not affecting it in any way, and from the angle through which the beam is deflected, the flow rate can be determined. An electronic method of measuring colors with photo-electric cells, is another ingenious measuring technique.

The point of the discussion is that you can tell the state of advancement of a group by examining its measuring apparatus. If we're ever so fortunate to manage to hit Mars and we do discover traces of life, the first thing we'll go for is the inhabitants' yardstick. If it's of wood or metal—O. K.! If it's electronic in nature—look out!

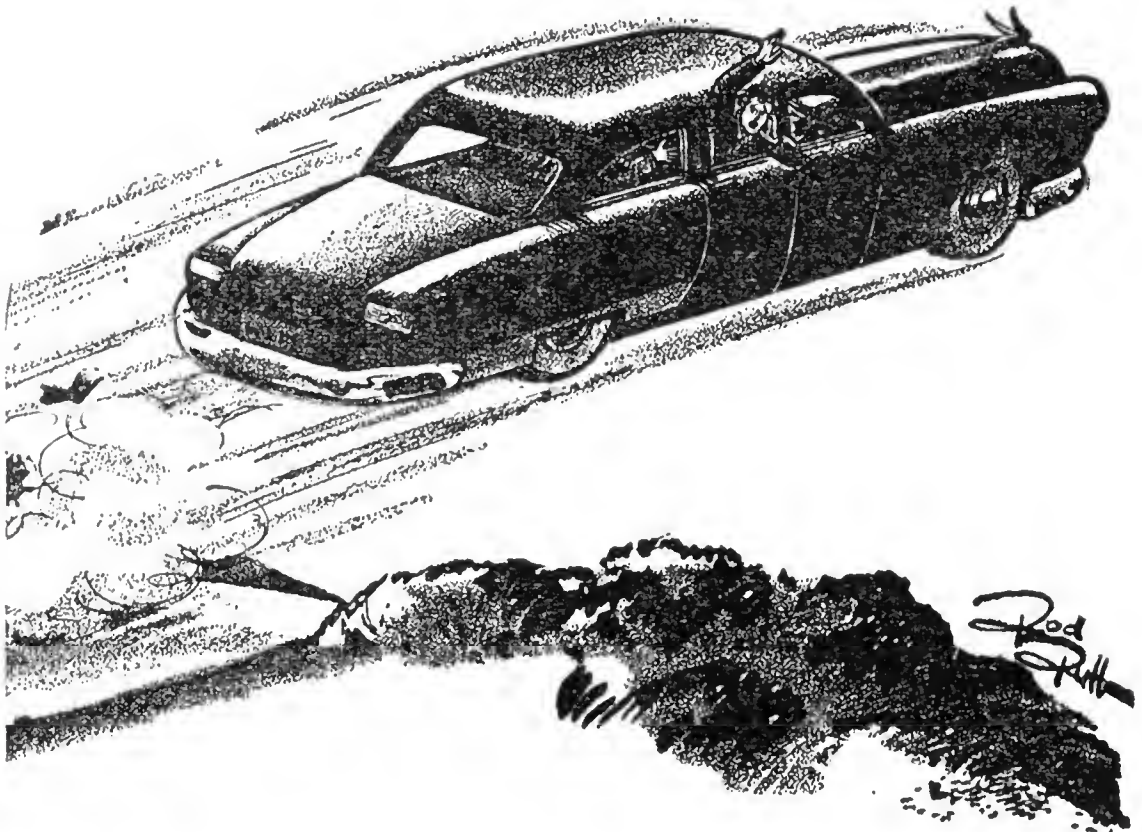
TICKET to VENUS

By E. K. Jarvis

The farmer, hearing Markham's cries,
might at least have spread an alarm.
But all he did was shake his head,
close his eyes and take the pledge!



Markham was sure space travel was not yet possible. Then how could this unknown agency dare sell tickets to other planets?



THE OFFICE had appeared as if by magic. One day the suite of rooms was empty, the next day furniture was being moved in. The third day the office was open for business.

A sign painter was busy lettering the front door as Markham passed it on his way to his own modest office.

SARTIN LINES

At noon, when Markham started out to lunch, he saw that other words

had been added to the door.

GENERAL TICKET OFFICE

Tickets here for

LUNA

MARS

VENUS

Perhaps nothing that could have happened, short of death itself, would have hit him harder than these three words lettered on the door. LUNA. MARS. VENUS.

According to the information discreetly conveyed by the lettering on this door, they were selling tickets to the planets right here in this office, just as, down on the first floor, they were selling airline tickets to Europe, Asia, and the islands of the far seas.

This—in 1951!

The idea shook him. For a moment he had the dazed impression that he had stood still for a very long period while time had gone racing by. There was a story—He groped for it. Rip...Rip Van Winkle. He felt as Rip Van Winkle must have felt, awakening from the sleep of twenty years and coming face to face with marvels.

He stood there in the hall of the building, letting the noon-time rush of hungry people heading for lunch jostle past him: a tall, lean, too-brown-skinned man clad in quiet, well-fitting clothes, with the tiny button of a hearing aid barely visible in his left ear, staring at the words on the doorway of this newly opened office. He was the only person who seemed remotely interested in this door. A few others glanced curiously at the words and hurried on.

To most people lunch was more important than space flight.

It's a gag, he thought. The words are just the come-on. If you go in, they will try to sell you mining rights on the moon, or a ranch on Venus, or an uranium deposit on Mars.

Sometime in the future these things would be for sale in Earth markets. But not yet. Humans had not as yet perfected space flight.

It *has* to be a gag, he repeated.

If anybody on Earth had made a single space flight, even the relatively short hop to the moon, every newspaper on the planet—with the possible exceptions of *Izvesta* and *Pravda*—would have carried headlines on this astonishing performance. It would

have been on every radio program, every columnist would have commented on it, and the fliers would have been on every telecast program. Here in New York, there would have been a parade down Fifth Avenue, with the fliers in open cars, while frantic secretaries tore up every telephone book in Manhattan to provide a fitting shower of paper to welcome the heroes.

There had been no parade, no shower of paper to plague the street-cleaning department, no radio and television interviews. Acres of trees had been chopped down to provide paper to describe the flying saucers and various rocket experiments in progress in New Mexico, but there hadn't been a whisper about a successful space flight. The Army had sent up a rocket which seemingly hadn't come down—the Army, or the Air Force, or whatever, couldn't find this rocket anyhow—but otherwise there had been nothing. Markham made it his business to keep track of such projects.

Therefore this office was a gag!

BUT WAS it? Had space flight actually been accomplished with no resulting fanfare and was one result of such an accomplishment the opening of an office to sell tickets to the planets?

Space flight would come some day, he knew. When it did come, an office to sell tickets would be opened somewhere, and somebody would make a profit out of the sale of tickets. There would be a freight office near the space port, with thick-chested men weighing freight shipments and carting them around in electric trucks. Chrome for Venus, and magnesium, and whole space-ship loads of the wonderful plastics developed on Earth.

"All right, I'll go see," Markham said to himself. The sign on the door

seemed to pull him toward it. As if it were a magnet and he an iron filing, he moved toward the door. He could not see what lay beyond the frosted glass panels. All he could see were those magic words: LUNA—MARS—VENUS.

His hand touched the doorknob and he stopped and took a quick step backward. What if this was a trap?

At the thought, his hand darted inside his coat, to the bulky body of the hearing aid amplifier snuggled in his vest pocket. The feel of this compact little device was reassuring. As long as he wore this hearing aid, he was in no danger, except from the transtron field, in which the aid would not operate.

Was a transtron field in operation here? Tendrils seemed to flow out from his mind, testing the space around him. He shook his head. There was no transtron field here. The tendrils flowed back, reporting that all was quiet. He opened the door.

There was a reception room and beyond it a door, with the word Manager on it. This door was partly open, revealing that the manager was not in at the moment. But the reception room was occupied by a girl behind a desk.

The girl behind the desk was utterly reassuring. She had long carmine-tipped finger nails, platinum hair that had obviously come out of a bottle, and false eyelashes, the long, droopy kind.

Markham liked this girl on sight. She was so common, so cheap, so gaudy, that she had to be real. A girl like this in a front office could not conceal a trap. She was too obviously stupid, for one thing, and for another, she looked so much like a come-on that she had to be real. He liked her because just the sight of her made him feel safe.

When he opened the door, she

favoring him with what she obviously thought was an alluring smile. "Was there something you wanted, sir?" Her smile said that whatever it was he wanted, she had it.

He ignored the smile. "Yes. How much is a ticket to Mars?"

Her face dropped a little. She consulted papers in front of her. "That depends. Anywhere between \$26,000 and \$64,000."

"Two prices to the same place?"

"That's what it says here." Her frown said she didn't understand it either but that was what the book said and a girl couldn't go wrong by sticking to the book. She bent forward to examine the papers. "It depends on whether or not Mars is at per—per—perhelion or at a-perhelion."

"What does that mean?" Markham said. He knew perfectly well what the words meant but he wanted to see if she knew.

"Gosh, mister, you'll have to ask Mr. Lewellyn. He's our manager here. He knows about things like that."

"When will Mr. Lewellyn be in?"

"Sometime this afternoon, I guess. But I can sell you a ticket."

"How much will the price be?"

"Well, our next trip goes on October ninth and the price then—I've got it right here—is \$38,000. Gosh, that seems a lot of money, don't it?"

Markham was silent. Maybe the girl didn't understand the reason for a sliding scale of ticket prices to Mars, but he did. Depending on their relative positions at any time, the distance between Mars and Earth varied from approximately 40,000,000 to about 60,000,000 miles. If the price of the ticket was computed on the actual distance between the two planets, then the price ought to vary.

Markham shivered. This little detail of a sliding scale of ticket prices was so accurate it was somehow frighten-

ing. And the whole situation here in this office was so commonplace that it made him uneasy.

In 1951, you ought not to be able to find an office selling tickets to the planets!

"If you will put down a deposit, sir—"

But fear was rising in Markham and he was heading for the door. The fear came from some hidden source within him and it rose as a compelling flood. "Later, perhaps." He flung the words back over his shoulder.

OUTSIDE, he was shaky. All during lunch, even with the rattle of dishes and the hum of conversation around him, the shakiness persisted. Was it humanly possible that space flight had been developed to the point where tickets could be sold to the planets? If it wasn't possible, then fraud was being attempted.

The city had an organization set up to deal with cases of fraud—the Better Business Bureau....

The man at the Better Business Bureau laughed heartily when Markham told him the story of this new office that had opened in his building. "Ha, ha, ha, *that's* a new one! What won't they think of next to separate a sucker from his money? Sure, we'll look into it and we'll put them out of business too. Can't have a bunch of crooks stealing money that honest businessmen are entitled to get. No, space travel isn't here yet. What gave you an idea like that? This is obviously fraud. We'll look into it." The tone of the investigator's voice said he would have the Sartin Space Ship Lines out of business within twenty-four hours.

Markham felt a little better. He left his name and telephone number. Late that afternoon, the bureau called. "I went over and talked to those people. The manager insisted they were

a legitimate concern. He even offered to show me the space ship itself."

The Business Bureau man sounded shocked, as if he had run headlong into a fact too big for him to handle.

"What!" Markham was shocked too. "Where is it?"

"He wouldn't tell me where it is. He said he didn't want a crowd of curious idiots thronging the landing field, which is quite small. He said there is some danger for spectators, and for this reason he wanted no publicity."

"When will he take you to see the ship? I assume you're going?"

"Why, any time, he said. I didn't exactly ask him but I got the impression he would be glad to take me out to the space port tomorrow afternoon. I guess I'll have to go. Do you want to go along?"

"No," Markham answered. "Yes—I don't know." Fear was rising in him again.

"Well, make up your mind," the Bureau man said, and hung up.

MARKHAM spent the entire night trying to make up his mind. By morning he had decided that the bureau representative might not be too reliable in matters such as this, that he wasn't a trained investigator, and that he might draw erroneous conclusions. But there was another agency—

When the office of the FBI opened the next morning, Markham was waiting. He was interviewed by a tall, pleasant-faced man whose name was Smith and who looked like he ought to be either an accountant or a lawyer. Smith listened patiently to Markham's story, but without showing much real interest.

"Why do you report this space ship matter to us?" Smith queried.

It was a question Markham had not been anticipating and which he had

difficulty in answering. "Why—it's my duty as a citizen. After all, if this is actually happening—"

"Do you think these people are really selling space ship tickets?"

"Well—"

"Do you think space flight is possible?"

Markham twisted uncomfortably in his chair. He did not like these questions, nor did he like the direction in which they were leading. He had been prepared to face laughter and scorn but he had not been prepared to have his private beliefs questioned. What if they made him take a lie detector test?

His voice took on a placatory tone. "I realize you people must hear a great many strange stories from—well, frankly, from a lot of nuts. But—well, you can go see for yourself."

"We will," Smith said. "In these times we have to investigate every rumor, no matter how wild it seems. You say there is an office in your building that is selling space ship tickets. We are not greatly interested in the sale of the tickets, but a ship capable of flight to the planets, this does interest us."

There were other questions, probing, prying, and revealing. When the interview was over, Markham was glad to get away.

When he got off the elevator in his own building, there was that door again, with its leering words:

LUNA

MARS

VENUS

Pressures inside of him took him straight toward it. The same girl was behind the desk. She had changed the color of her nails to deep maroon. There was no other change.

"Sold any tickets yet?" Markham asked her.

"You're the gentleman who was in yesterday? No, we haven't sold any yet. But maybe we will today. You wanted to go to Mars, didn't you?"

He was mildly astonished that she could remember the planet he had inquired about but he did not answer her question. "How long has this line been in operation?" he asked.

"Gee, mister, I don't know. I only came to work yesterday. Did you want a ticket?"

"Before I make up my mind, I want to see the ship."

"Oh, in that case, you'll have to talk to the manager. Just go right on in. Mr. Lewellyn will see you."

Markham didn't go in. He knocked politely on the inner door. And the manager came out. Tall and stately, with clear blue eyes and snow white hair, he looked like a banker. Just the sight of him inspired confidence. Looking at him, Markham understood why the Business Bureau man had felt this man represented a legitimate concern. Markham almost felt the same way himself.

"Come in, sir. I am Richard Lewellyn. I'll be glad to answer any questions you care to ask."

THE OFFICE was modestly furnished. The desk was plain walnut, the ash trays were without chromium trim, the fountain pens were old fashioned. Markham eased himself into the chair beside the desk and found it comfortable. "Do you actually have ships that fly to the planets?" he demanded, almost sharply.

Lewellyn seated himself behind the desk and folded his hands across his stomach. "Of course. My dear sir, are we not offering tickets for sale? Would we sell tickets on non-existent space ships?"

"But why haven't we heard of this space ship line?"

"Because Mr. Sartin does not want

any unnecessary publicity. He has a quirk that amounts almost to an obsession about seeing his name in the newspapers. Of course, we realize that some publicity will be unavoidable, but Mr. Sartin wishes it held to a minimum. And since he is the man who devised the Sartin Drive and built the first space ship, naturally his wishes are to be respected. It had been his dream for years to perfect space travel, then quietly to open up freight and passenger offices and to make the announcement that flight to the planets is now possible, on a matter-of-fact basis, just like buying a train or a plane ticket. No fuss, no blaring headlines, no gushing of newspapers over his great accomplishment: these are his ideas."

"I see," Markham said. It sounded reasonable. Just as ocean lines and steamship ticket offices had followed a long time after Columbus, commercial interplanetary transportation on Earth would follow the first daring human adventurer who reached the planets and returned. He began to ask questions. Lewellyn answered without hesitation. "Can I see the ship?" Markham finally asked. To him, it was the only important question.

"Of course," Lewellyn answered. "Do you think we are trying to sell a pig in a poke? If you really want to buy a ticket, you can see the ship. If you have a commercial proposition to offer us, you can see the ship. As a matter of fact, I am planning to take a representative from the Business Bureau and a newspaper reporter out to see the ship this afternoon. If you care to go along with us, we will be most happy to have you."

"What time?"

"We plan to leave about five-thirty."

Markham made up his mind. "I'll be here. How are we going to get to

the space port?"

"In the company's regular limousine," Lewellyn said.

ARRIVING at the Sartin Lines office ten minutes ahead of the appointed time, Markham discovered that the Business Bureau man was already present. With him was a tall, seedy individual in rumpled clothes whom Lewellyn introduced as a Mr. Johnson, a reporter.

"I thought you did not want any publicity," Markham said.

"As I told you, we neither welcome it nor avoid it," Lewellyn explained. "Mr. Sartin realized that a venture of this magnitude cannot be kept secret forever and he is prepared to accept a certain amount of the right kind of publicity, as a necessary evil. He trusts, however, that the newspapers will not give undue space to his small accomplishment." This last was said with a warning look at the reporter.

"He 'trusts' in a pig's eye," the reporter answered. "He's just pretending he doesn't want any publicity so he'll be hounded with it."

"You don't know Mr. Sartin," Lewellyn said stiffly.

"Just show me this ship, old playmate. That's all you've got to do. I'll do the rest." The reporter seemed to muse darkly about some secret matter.

Lewellyn shrugged but did not reply. The reporter lit a cigarette and yawned. Plainly he had no faith whatsoever in the reality of a space ship. "And here I had a date tonight," he muttered, brooding again.

Lewellyn looked at his watch.

"Let's get going," the reporter said. "I haven't got all night to spend looking at a space ship. Maybe, if we hurry, I can still catch her before she calls up somebody else.... Hey, Mac, how long before we get this show

on the road?"

"I'm waiting for another passenger," Lewellyn answered. The tone of his voice indicated he was in complete agreement with Mr. Sartin not only about publicity but about the men who provided it. "If your time is too valuable, I suggest—"

"Don't mind me, Mac, it's just that this dame won't wait."

Markham kept in a corner and said nothing. He was both fretful and worried. He disliked the flippant attitude of this reporter.

The door opened. The man who entered was greeted respectfully by Lewellyn and was introduced around. He was the FBI agent to whom Markham had talked in the morning. And obviously Lewellyn knew his occupation.

"Well, we're all here," the manager said. "The press, the representative of Better Business, the majesty of the law, and one potential cash-paying customer. Now if we only had a crook to round out our little group..." He laughed heartily at his own joke.

The car was a big limousine. A uniformed chauffeur was at the wheel. The side of the car bore the words in modest lettering:

SARTIN SPACE SHIP LINES

The car slid through traffic with the effortless ease of a ghost. Lewellyn sat in the front seat beside the chauffeur and kept up a running conversation with the FBI agent on the jump seat immediately behind him. Markham sat in the middle of the back seat, the Better Business agent on his left, the reporter on his right. The reporter was still brooding darkly and was urging the chauffeur to "get some speed out of this hearse."

"We will need a little more than an hour to reach the port where the ship is kept at present," Lewellyn explained.

Markham thought: space flight

coming to Earth like this! A reporter muttering about a girl and an incompetent little man from a business bureau and a tall detective from the FBI, and he—all going out to see a space ship!

What strange things these humans did!

Darkness had fallen before the car had left the city behind it. They were in rolling, hilly country. The car purred smoothly up a long hill.

When it reached the crest of the hill, it kept right on going up.

AS HE GOT the sensation of continuous rising motion, Markham knew instantly what had happened and was happening. His hand darted to the control switch on the artificial hearing aid that he wore, snapped a button there, snapped it again and again.

He knew that snapping the button was useless. The transtron field had already hit him. Sensitive tendrils inside his mind reported the field as it leaped into existence. The movement of his fingers frantically pushing the button on the hearing aid was reflex action, like a drowning man clutching at a straw. He crouched against the seat, shivering with apprehension, his face a mask of torture.

In the front seat, Lewellyn laughed gently. "The vowel projection does not work in the transtron field, eh, Ulgardu? Too bad. Too, too, bad."

Like a trapped animal, Markham huddled against the seat of the car, his mind searching frantically for a means of escape that he knew did not exist.

This was it and he knew it. He had only one hope.

The silence in the car was broken only by the hum of the powerful motor, which was much louder now that it was not only operating the space-warping drive that lifted the

car upward but was also supplying current to energize the transtron field. But the car was not moving fast, not really fast, yet.

Markham dived for the door of the car, snatched it open. No one made a move to stop him. Air hit his face, the door of the car resisted his efforts to open it. He got it open six inches, far enough to see the distance that lay below him.

Below him winked the lights of a town in the dusk. The car, slow as it was moving, was already several hundred yards in the air.

"Go ahead and jump, if you wish," Lewellyn's voice came from the front seat. "Jumping now will save us trouble later. So if you jump you will be doing us a favor."

A sound was torn from Markham's throat. He let the pressure of the air stream slam shut the door and collapsed again on the back seat.

Lewellyn laughed, gently.

Johnson, the reporter, craning his neck to look out the window, suddenly began to scream.

"This damned automobile is flying through the air like an airplane!" The reporter sounded like a man scared to the verge of insanity. He grabbed the door handle, crouched holding it but afraid to open it. He screamed again.

Better Business was screaming too, in a high falsetto. "Let me out of here." He said it over and over again, like a phonograph record that has stuck in the same groove.

In the front seat, Lewellyn spoke. "You wanted to see the ship, didn't you?"

"What ship?" The reporter gobbled the sound. He had forgotten the purpose of this trip.

"That's where I'm taking you," Lewellyn answered. He gestured toward the sky. "It's up there on an orbit that keeps it constantly on the

night side of Earth."

"But—but—but—" The reporter again made the gobbling sound. Under the dome light, his face was twisted, his eyes were those of an animal. Sweat was on his face and his throat was working as he tried to find words to say. Abruptly his face muscles went slack and he slid forward on the floor boards, falling face down.

"Probably only fainted," Lewellyn said.

THERE was one man in the back seat of the car who had not spoken and who had not moved. Only his face showed what was happening inside his mind. His face had turned gray. His hand went inside his coat and came out with a gun.

He was the FBI agent, Smith.

At the sight of the gun, Markham tried to pick up hope again.

"I don't know what you're doing or how you are doing it. I don't know where you came from or what you want." The agent spoke the words carefully, one by one, as if he was measuring their impact. "But I know you had better take us back down to Earth again." He made a stabbing movement with the gun in his hand.

Lewellyn became aware of the gun. As his eyes came to focus on it, his face seemed to freeze. Then he laughed.

"Take us down!"

Lewellyn continued to laugh.

The gun thundered.

At the distance it was held from its target, the bullet could not miss. Lewellyn's face should have exploded in a bloody pulp under the impact of the heavy slug. But nothing happened to his face. It lost none of its good humor.

Directly in front of his face a piece of metal flared into existence, the bullet striking an invisible barrier be-

tween the gun and Lewellyn. The slug splashed upward, as pieces of metal, struck the roof of the car, and fell to the floorboards.

The only sign that it had been fired was a thin stain of metal rising upward along this invisible barrier, a stain of metal and a reek of smoke.

The FBI agent's eyes came to focus on that stain. Slowly and reluctantly, he slipped the gun back into the shoulder holster from which he had taken it.

Markham watched him put the gun away. The little hope died in him. He had not really expected anything from the gun.

"You should have known better than to try to use such a weapon," Lewellyn said. "I had to be prepared to face a real weapon, in case Ulgardu sensed he was being trapped as the transtron field went into operation. A barrier that would stop the voul projection would also stop a bullet from your gun."

"Ulgardu?" the agent said.

Lewellyn nodded toward the back seat. "The man you call Markham back there. Only his name isn't Markham and he isn't a man. He is a criminal from Venus who has been hiding out on Earth. I've been looking for him for a great many years. He is wanted badly back home."

"Huh?"

"A very wary, very suspicious, and very competent criminal," Lewellyn continued. The tone of his voice became professional, he spoke now as one criminal hunter to another. "Even after we had located him, we didn't dare take a chance with him. I assure you that the weapon he carries hidden in that artificial hearing aid he pretends to wear is most devastating in its effects. Most devastating."

THE TRACE of a shudder crossed Lewellyn's face. "To take him at

all, we had to trick him into a spot where we could clamp down on him with the transtron field, which is an electro-magnetic force flux which nullifies the operation of the voul projection. Since the transtron field itself requires a special installation, it alone was a difficult problem. Then we had to get him into a position where, once we had trapped him, we could get him away from Earth immediately. "It was quite a problem. We had only one fact to go on, that he would like to return to Venus, if he could manage it in safety. The friends who had brought him here in the first place could not return for him because we were watching them. They would help him again, if he could find some way to get to Venus. So we gave him that chance." He chuckled softly, as some joke that he alone knew.

"Then that space ship ticket office—" the agent gulped.

"Bait, of course," Lewellyn answered. "We opened it where he would be sure to see it. He would be exceedingly cautious, of course, but as long as he thought he had a chance to get to Venus undetected, he would investigate that chance. And, since he knew the development of science on Earth has not yet achieved space flight, the first thing he would demand to see would be the ship, to make certain that it would actually operate. He would not be likely to trust his precious body to some clumsy rocket flier; he would want to make certain that Earth scientists had actually developed a vessel capable of space flight. We would, of course, agree to take him to see the ship, but under conditions of our own choosing, said conditions including transportation in this car, which is a stock model from an Earth manufacturer but which includes some special equipment which we installed ourselves."

His eyes twinkled at Markham, hunched down in the back seat. "The car fooled you, didn't it?"

"A lot of things fooled me," Markham growled.

"But—but—" the agent's voice had developed a creak. "Why didn't you tell us what you wanted? We would have helped you."

"We like to kill our own snakes," Lewellyn answered. "And if we asked help from you, we would have to admit that we exist. Such an admission would distort your whole economic and social structure."

"It is much better to let you develop space flight yourselves. Then you will grow with it rather than have it thrust upon you from the outside. Incidentally, I am sure your scientists will develop space flight within a few years. Then we will be glad to do business with you."

"But—what about us?"

"You? Oh, you're going to Venus with us."

"To Venus?" The agent sounded shocked.

"Yes, you will like it there. It's a nice place. And in a few years, when your people develop space flight, you will be allowed to return home."

"There will be a hell of a stink raised about our disappearance," the agent protested.

"Yes, I imagine inquiries will be made," Lewellyn answered. "Well, it won't be the first such mysterious disappearance. As to the office of the Sartin Space Ship Lines, we'll just let the owners of the building close it for non-payment of rent. I imagine the authorities will give the girl I hired a difficult time but I doubt if they will learn much from her. As to the mystery of your disappearance, it will have to remain just that."

His voice went into silence.

The big car rose upward. Below them, the surface of the earth was already many miles away. Above them, keeping always in the shadow of the turning earth, the space ship was waiting.

THE END

GAMOW'S "YLEM"

By ROY ZUBER

DR. GAMOW is a professional physicist of wide and honored attainments and what is more important, he has a faculty for taking the most abstruse mathematical and physical theories and making them intelligible to the layman. His popularizations are models of clarity and he does this sort of work as a hobby in addition to his professional duties.

Recently he discussed in a fascinating manner the origin of the universe using as a starting point the stew of fundamental particles like protons and electrons, which hundreds of billions of years ago began to coalesce into the basic constituents of matter which we know as elements. This time long precedes the formation of the stars!

Dr. Gamow uses the word "ylem" to describe this primordial soup. This ylem existed in fantastically low concentrations throughout the vast emptiness of space. Then under the influence of forces unknown to us it began to condense into light elements and then into heavier ones. In

terms of temperature which is actually a measure of the amount of kinetic energy possessed by a gas, this ylem must have been at millions of degrees!

After a time—a very short time—the coalescing ylem ceased to combine; the universe had been made! The general density of the universe was now very low. And the particles after coalescing one with the other began to expand as groups until now we've reached the stage where effectively we seem to have an expanding universe.

This is all purely hypothetical naturally, but it is a rational attempt to explain the formation of the universe. Of course it fails to consider the origin of "ylem". This primal stuff must have come from somewhere but we're not equipped to say where.

At least it must be considered a miracle to think that Man can extrapolate so far into the remote past no matter how far from the mark the guess may be. Actually it is more than a guess...

POWER FROM THE PILE

By
OMAR BOOTH

THE FONDEST of men's hopes is that some day, from within the hellish bowels of atomic power plants, useful electrical energy will be delivered in unthinkable quantities. The ravaging energy of the released neutrons now is available as heat. But men want electrical energy, not heat. The question has been; how to get it?

You would think off hand that utilizing an atomic pile wouldn't be the most difficult job on Earth. After all it generates heat energy and we know how to use that. Wouldn't it be easy to harness a water jacket to the pile and use the steam thus created to drive turbine and eventually electric generators?

That has been the general tack followed by the engineers and scientists. The only trouble with the scheme is that there is another factor which must be taken into account. Where there is an atomic pile, there is hell! From the interior of the disintegrating atoms we get energy all right, but energy in its most lethal form—neutrons and deadly gamma rays, which contaminate and infect every material brought near them. Human beings can't work or observe near the piles without fantastic amounts of lead and concrete and steel and water shielding. That is the main reason why atomic energy has been so slow to develop.

On the other hand, it can be done and right now in laboratories and atomic energy installations everywhere, efforts are being made to create power plants. But the hope has still been—try and find some way to convert the atomic energy to electricity directly—please work to find that way!

There is hope that there might be a way. The hope lies in an old physical prin-

ciple which has been much used in instrumentation. It depends on what is called the "Seebeck effect". If you take two dissimilar metals, fuse them together and then heat the fused junction, an electric current is generated at the expense of the heat input. In other words heat energy is directly converted to electricity. Many pyrometric and thermometric devices are based on this idea.

You ask naturally, "why not use this in an atomic furnace?" The answer is that it has been tried, but there are definite limitations. These thermocouples deliver very small amounts of energy, too feeble for any sort of power generation.

But scientists never give up and it appears that there is a definite hope for the future. The neutron thermometer, as the device is called has been long used in atomic furnaces as an instrument. Refinements and study of the device have pointed a way by which it may be extended to deliver power. In fact some thermocouples have been built to yield as much as a quarter of a watt. While this figure is trivial from a power standpoint, it is still electrical energy directly converted from the heat of the pile and it requires no expensive and elaborate plant.

It is too soon to say that the problem has been conquered. But given a clue, scientists have a way of putting unconventional things to work. It is perfectly conceivable that in our time, we shall see the emergence of a full scale power plant from an atomic furnace using the Seebeck effect. This still hinges on discovering metals and junctions which will deliver power in quantity. But it is no dream or fantasy. It is a definite distinct, reasonable hope!

JOVIAN MONSTER



By SALEM LANE



ONE OF the amateur astronomical journals has recently published a back cover which is a photograph of the planet Jupiter through a twenty-four inch refracting telescope, and blown up to cover size, is about as impressive a picture as can be imagined. When one looks at a photograph like this, it is easy to see how much can be learned about such remote objects.

Very clearly, the bands and streaks of alternate darkness and brilliance appear like girdles lacing the planet. The oblate spheroidal shape of Jupiter is quite clear, as if two gigantic hands had pressed the planet at top and bottom poles and

pushed or squeezed it together. This is due of course to Jupiter's speed of rotation and its relative plasticity.

In addition the outline of the planet is fuzzy and hazy, an inevitable consequence of the fact that the gigantic planet has an atmosphere. It may be lethal methane and ammonia, but it's still an atmosphere! The notation points out the planet's diameter as about eighty-nine thousand miles. If you visualize an eight thousand mile disc against a background like that you get some idea of the enormous size of Jupiter. Since the diameter is ten times as great, the volume is a thousand times greater!



Even the walls changed shape as the two men ran. Now, the rock twisted into giant hands reaching for them.

The Cave of the Mad God was like a maw — destroying the souls it engulfed. But why didn't the curse work on Benno?



LAUGHING MATTER

By H. B. Hickey

SIT DOWN, mister; take the load off your feet. Plenty hot up here, eh? Especially when you're not used to it.

Have I been on Venus long? Oh, not so long. I know, yes, I know. But you'd be astonished at how young I am. I'm sure you would. But then, a lot of things up here are surprising. Ha ha!

A drink? Sure, anything you want. Even absinthe. After all, you're a long way from Boston, Mass.

Do I know who? Benno? Benno Bates?

Ah, I had a hunch you'd ask about Benno. What are you, a policeman, a

husband or a bill collector? A bill collector, eh? Had to be one of the three, you know. Who else would be looking for Benno?

That much money, eh? Well, I'm not surprised you came all this way to collect.

No, I don't expect Benno soon. No, not tomorrow either. In fact, I wouldn't wait around here at all, if I were you. I don't think Benno will be coming in.

Here, have another drink. No, no, I'm not giving you the business, as you call it. Here, have another drink.

Sure, this is Looney's. That's right—I'm Looney. Who else would I

be? Funny name, Looney, eh? Benno gave it to me. He thought it was very funny. A real joker, Benno, always making fun. Ha ha ha!

I know, it isn't a nice name. Benno did other things that weren't nice either. But I'm not the violent kind; I couldn't lift a finger against anyone, no matter how angry I became. More the intellectual type, yes.

Well, thanks, I will have one with you. Very kind of you to buy. It doesn't happen often up here, believe me.

Where does Benno live? What was his last known address? Listen, a man like Benno makes sure his address is never known.

When I last saw him? Well, let me see. About six months ago, I think. Memory's not so good, you know. Mixed up a bit sometimes. Ha ha! But I think six months would about be right.

The place was different then. Five thousand dollars I've spent remodeling. Makes quite a difference, five thousand dollars. I always wanted a real nice place, you see, and as soon as I had the cash, I fixed it up.

Oh, yes, about Benno. He was sitting over there, where the bar was before I moved it. It's much better here, don't you think? Gives me a view of the whole cafe.

Anyway, Benno was there when Barney Corriden came in.

Barney Corriden. Another one, just like Benno. Always making fun. Very vicious sense of humor, you know. Of course, like I said, I'm not the violent type myself. I wouldn't lift a finger in return.

They were partners at one time, you know. Oh, yes. Some dirty business or other. They broke up partnership before I came up here, though, so I wouldn't know.

But it couldn't last long anyway.

Two different types, you know. Benno so tall and graceful and handsome—in a slimy way, I always thought. And Corriden, a redheaded, thick shouldered, ox of a man. They were bound to fall out. And nobody hates like two partners who have fallen out. Isn't that true?

No, they weren't in competition. Corriden was in the slave trade, you see. His type of work: Round them up, beat them up, throw them in cages and sell them to the highest bidder. Illegal, of course, but very good money.

For Benno, of course, something more genteel. In with the Venusian priests. All kinds of things the priests need for the different rites. Mostly forbidden now by Earth law. But Benno got them in somehow. Oh, yes, in very solid with the priests.

WELL, SIR... Yes, yes, I know.

But if you don't let me tell it my own way, I'll get mixed up. Here, have another drink. On me.

So Benno Bates was sitting at that table there, where the bar used to be, or just beyond it, really. With a lady tourist from Earth. They were drinking champagne. Leave it to Benno!

He was telling her all about Venus. About the customs and so forth. Later, of course, she'd learn a few other things from Benno. That's what I meant about husbands and policemen, meaning no offense, mister. Just my way of talking. And, of course, giving the devil his due, Venus can do things to a man's mind after he's been here a while.

So, anyway, there was Benno, his dark eyes shining and her looking into them while he told her things. About the time he took the medicine up Fog Peak to save an expedition. And about the time he was lost for eight days on the Red Sands. All kinds of

things like that.

Not exactly boasting, either, or at least it didn't seem to her that he was boasting. And all the while, you know, him thinking about what would happen when he got enough champagne into the lady.

Well, all of a sudden Benno looks up and there is Barney Corriden standing by the table. For all his size, Barney can move fast and quiet. Even drunk as he was.

"Hello, blowhard," Barney said.

Benno looked at him very hard.

"Who is your friend?" the lady asked. She was really too drunk already to be quite a lady, and I think that's what bothered Benno. Nobody likes to lose one after it's hooked, if you'll excuse the expression.

"He's a meat peddler," Benno said, laughing. "Wholesale. In the packing trade, as we call it."

"Oh, I didn't know you had an industry here," the lady said.

Benno's laugh was not pleasant. "Oh, yes. He specializes in the two-legged kind, on the hoof. With the best reserved for his own table, of course."

This was a very nasty thing to say. You've seen the Venusian women? Well, the aborigines are much uglier, believe me.

The fine red hairs on Barney's neck were bristling. "Tell the lady about your own line of work, Benno," he said.

"Oh, he has," the lady said, already somewhat confused. "He's in medical supplies."

"Yeah," Barney grunted. "Medicines. The kind that make a Venusian willing to hop in the high priest's fire. The kind the priests give little girls so they'll grow up—"

"Shut up!" Benno shouted.

IT WAS getting very serious, believe me. Barney had a gun under his

armpit and he was itching for a chance to use it. And as for Benno, well, Benno could get that knife out of his sleeve and into a man's heart quicker than you or I can spit.

Nice fellows, eh? Ha ha!

"So he was telling you about Fog Peak?" Barney said, not paying much attention to Benno. "Well, the only time Benno Bates ever got both feet higher than the ground at once, the cops were on his tail."

"Listen—" Benno warned, moving his chair back.

"And if he ever spent five minutes on the Red Sands, his guts'd turn to jelly," Barney went on. "Not that Benno's got any guts to speak of."

Benno pushed the table over. He'd forgotten all about the lady by then. And besides, Barney was rubbing elbows with the truth about him not being too brave. According to Barney, when someone had to be taken care of, Benno usually had a friend in the priesthood arrange it.

"You dirty slaver!" Benno shouted. "Why, you filthy jungle rat!"

Barney just laughed at him, waiting for him to make a move toward that knife.

"So I'm a jungle rat," Barney sneered. "That's why you let me do the collecting when we were in business together, huh? You wouldn't have the guts to stick your nose into that jungle!"

Well, there were a few other people present. Benno couldn't let Barney talk that way.

"Any time you think you're braver than I am..." he said, and he jerked his head at Barney's shoulder.

Well, right there was where I stepped in. In a nice way, of course. It might have talked itself out, blown over, but you never know.

"Gentlemen," I said.

"Blow, witless," Barney told me. He

always called me that.

"Beat it, Looney," Benno said. And a few curses, of course.

"Really," I said, "there's no reason for violence. And why should you argue? One says he's braver; the other says he's braver. Why not settle it sportingly?"

"Huh?" They both stared at me.

"Sure. You're both sporting gentlemen. Make up a regular test, with a bet on the outcome, if you wish."

Barney looked at me. "Witless," he said, "I think you ain't so crazy after all."

Grinning at Benno, he said, "Well, blowhard? How about it? We could each take a knife and some water and step into the jungle. First man to come out the other side takes the bet."

"Great idea," Benno said. "For you."

"I thought you wouldn't like it," Barney laughed. "All right, how about the Red Sands, with the same equipment? You put in eight days there, remember?"

Benno's face was getting red. He might have been on the point of walking out on Barney. Or he might have been figuring his chances to use the knife before Barney could draw his gun. With Benno, you couldn't tell.

"Wait," I said. "You're not being fair, Barney. You've got more experience than Benno in things like that, you know. It's got to be something where you're both equal, something neither one of you has done before."

"Hell!" Barney said. "Like what?"

I thought about it. "Well," I said at last. "Well, you could try the Cave of the Mad God."

Benno's eyes got very wide. Barney turned white as paste. A terrible silence hung over the place.

THE CAVE? *Llhunaua el'asii y'llaau*
—The God Who Laughs. You don't know the legend, I suppose. No?

Well, according to the Venusians, Llhunaua was born with a terrible appetite. He ate all the food and drank all the water until nothing was left for anyone else. And still he was hungry, demanding more and more.

And then, one morning, he awoke to find a large platter heaped with food. Without a thought, he gobbled it up, not even waiting until his mother and father could join him for a bite. And it was only when he was down to the bones that he found two rings. The rings belonged to his parents, who had sacrificed themselves to his gluttony.

Llhunaua went mad on the spot. In Venusian, you notice, the word for god and the word for laughter have much in common.

At any rate, to return to the story, the mad god could not even bear the sight of himself—the reason mirrors are still tabu among Venusians—and ran away and hid in this cave, where he still lives.

Once a year, on Llhunaua's birthday, the High Priest rolls away the stone at the entrance to the cave and sets inside a platter of precious metal heaped with food. The next morning, when the stone is moved aside again, all the food is gone.

What's that? Superstitious mumbo-jumbo? I know how you feel. At first, everyone feels that way, but after you're here a little while, you're not so sure. Venus does things to a man, as I said.

To get back to the cave, though, it serves another purpose, too. When a Venusian commits any one of certain crimes, the motive for which may be considered greed, the High Priest rolls aside the stone at the entrance and the criminal is driven inside. The only way he can get out is to go through the cave, which is really very large, as it takes two days; and very nearly

circular, for the small opening of the exit is near the entrance.

Not much of a punishment, you think? I don't know. Crimes of greed are quite rare among the Venusians.

You see, those who come out are not the same. They are mad. Llhunaua has taken their souls.

Believe me, no Earthman who has been here long and knows about it, would think of entering that cave.

WELL, TO get back to Benno. He and Barney Corriden simply stood there for a few moments. Barney was licking his thick lips, his hard features softening to putty.

"Quite a test," he muttered.

Benno looked at him and began to grin. "So? Who's the blowhard now?"

"Listen, you dirty dope-peddler!" Barney snarled. "I'll break every bone in—"

"Sure. But what about the cave?"

Barney couldn't believe his ears. "You mean you'd do it?"

Benno Bates looked angrier and more vicious than any man I have ever seen. He dug into his pocket and flung his wallet on the table.

"For how much money?" he shouted.

Barney looked at the wallet and began to unbuckle his money belt. "Come on in the back room," he said.

They took me into the back room with them. They counted out the money, twenty-five hundred dollars apiece of their evil-stained wealth. I was the stakes-holder.

"Listen..." I said. "Perhaps I was hasty."

"If he'll do it, I'll do it!" Benno snarled. "We both go in and the one who comes out, or comes out in better shape, is the winner."

"Who'll be the judge?" I asked.

"You! And you're going to roll that stone away and put it back."

"Not me," I said.

"You."

Well, what could I do? Against two like that, you know.

The details presented quite a problem, however. They knew each other very well, you see. Two men go into the cave together, and only one comes out.

Who would know what happened? Who would even dare ask? How long does it take to put a bullet into a man's head? Or a knife into his back? Or even, for men like that, to make a twist with the hands when another's back is turned?

It was I who thought of the solution.

They could both go armed and neither would have to be afraid he'd be left dead inside the cave. Both would come out, or neither.

I took a chain and twisted it tightly around Benno's left wrist and around Barney's right wrist, and then I took a lock and ran it through the links where they crossed. I snapped the lock and put the key in my pocket. They were as good as handcuffed.

Then, we went.

It is not a long ride, only an hour and a half on the speedy Venusian camel to the edge of the Red Sands, where the mountains fall away into the terrible abyss and the stones are hot as fire during the day.

At night, however, it is cold enough. Especially with one's thoughts. And we had to go at night, in order that we should not be seen by Venusians.

The stone is very large, resting in a sort of cup. I'm not very strong, and at that moment my arms seemed made of overcooked spaghetti. Benno and Barney had to help me roll the stone aside, leaving it balanced so I could push it back easily.

They slipped into the opening. With a quick shove, I sent the stone back into place. And then I jumped onto

my camel and got out of there as fast as I could.

THEY FOUND themselves in a low chamber, several hundred feet long and widening gradually from the narrow opening. At the entrance it was quite dark, but as they moved forward a faint glow developed, sufficient to illuminate the cavern dimly.

The walls and floor and roof of the cave are of that strange Venusian rock sometimes found underground, slightly luminescent and of a perfect pinkish skin tone. Very much like human skin.

There was no sound at first as the two men moved along toward the larger cavern. Just the sound of their feet scuffing on the floor.

And then, just a few feet from the larger chamber, they heard something.

"Ssst," it went. "Hsst." Like a stage whisper, like someone calling them.

They looked around quickly. Nothing. Tortured shadows in the far corners of the huge chamber. Nothing more.

A faint odor they had noticed was now becoming stronger. Not a pleasant odor. The smell of an old grave, perhaps. Flesh had rotted here.

There was another sound now, a sort of snicker. "Hee-hee."

It was the sort of thing to remind a man of a fun-house. But even a fun-house is frightening in the dark. And these sounds, this insane snickering and chuckling, seemed to be in their very ears.

They turned quickly from left to right and back again, jerking each other to and fro as they tried to catch sight of the thing that mocked them. At times, the sounds were so close that they whipped around, snatching blindly, and caught only shadows.

Time gets lost in a place like that. Large chambers, small ones, they all

become the same, and the minutes and hours run together like quicksilver.

Even the walls were no longer steady. The flesh colored rock writhed and twisted itself into the shape of human arms and hands that reached out for the two men. And the insane laughter, louder now and echoing and beating at their brains as they began to chase it, grew until they were in the midst of a subterranean Bedlam.

Somewhere very close to them this thing was, so close that if they could only move quickly enough, they could seize it. But they couldn't move quite fast enough. It was always just out of reach.

And it was very sure of itself. It laughed at them and mocked them, even when they were only a short distance from the exit. It followed them as they ran wildly, clutching at them with ghostly fingers, telling them they could never escape.

I WAS BEHIND the bar when they came in, still chained together. A few people in the place at the time, but nobody except me knew where they'd been. They came up to the bar.

"Whiskey," Benno ordered.

I poured out two doubles and set them down. They gulped the drinks greedily, and only after the liquor was burning in their stomachs did they reach out their hands for me to unlock them.

I got the key out quickly and freed their wrists.

What? You suppose the experience did what? Restored their friendship?

Look, am I talking about Lord Fauntleroy and Pollyanna, or about Benno Bates and Barney Corriden? They hate each other more!

"The money!" Benno snapped, jerking his head at me.

"The money!" Barney shouted, banging the bar.

Benno glared at him. "Wait a minute, you!" And to me, "Fork it over, Looney!"

"Fork it over?" Barney snarled. "It's a standoff, ain't it?"

"Is it?" Benno asked, and his grin was not pleasant to see. "Give him a mirror, Looney."

I dug down behind the bar and got a small mirror and handed it to Barney. He took it, his hand beginning to tremble.

It was a terrible thing.

His hair was no longer red. It was white; an old man's hair. His face that had been hard as wood was lined and wrinkled and weak with fear and aging. His lips were loose and his eyes watery pale.

Two days in that cave had done this to him.

"So I guess I win," Benno said.

Barney stared at him. But Benno was the same as ever. His clothes mussed, of course, and torn here and there. And he hadn't shaved for a couple of days, naturally. But otherwise the same.

Somebody else would have been satisfied. But not Benno.

"The funny thing," he said, and his smile was nothing but evil, "the funny thing, Barney, is that there's nothing in that cave. Nothing. It's only the air going through that makes the noises."

Benno, you see, being in with the High Priest the way he was, had known the truth all the time. He hadn't been frightened for an instant.

"Nothing but air," he said again.

That was all that was needed. Barney Corriden suddenly threw back his head and began to laugh. "Ha ha! Ha ha ha!"

Oh, yes. Quite mad. Crazy as a loon.

HERE, MISTER, move your elbow and I'll wipe up there. I must've filled your glass too full.

Yes, it was a terrible thing. Just the kind of joke Benno liked, you know. Yes, I suppose the money counted a great deal too.

So at least what? Your chances of collecting the bill are better? Oh, no. I told you that in the first place. No use your waiting. Benno isn't coming in.

Anyway, he never got the money.

You see, Barney might have been quite insane, but his reaction was automatic. He had that gun out in a flash, and before Benno could make a move, he was spouting blood from the bullet wounds in his head and body.

He died on the spot.

Barney? No, nobody did anything. He got out of here too fast. Headed straight for the jungle and never came back. I suppose the aborigines got him. They'd been waiting long enough.

So tell me, mister, what do you think of my place? The new bar is quite nice, don't you think? And the decoration, too, wouldn't you say? Of course, you can do quite a bit with five thousand.

What? Naturally I kept the money! I was a creditor, too. As much money as either of them had, they always paid by signing the check. Why shouldn't I keep the money?

All right, so sue me. So say I was involved, that it was my idea in the first place. No, I was not in with Benno!

What can you do, anyway? Take out the bar? Scrape the paint off the walls?

And say, about the paint, what do you think of that flesh color? Natural, isn't it? And quite an idea, covering the bar to look like human skin. Don't you think so?

What's that? You mixed me up, changing the subject like that. Oh, yes, that's right. The whole thing happened in five minutes. Exactly as I

told it to you. Not even five minutes.

Wait. Let me get it straight, mister. If they were here only a few minutes...and didn't say anything except what I told you...then how come I know so much about the cave? How do I know what it looks like and sounds like and all?

Say, that's a smart question. You're pretty shrewd, mister.

Of course I've been there! Right after I came up here and bought this place. I raised a fuss with Benno about his bill and he forced me at the

point of a knife to go through the cave.

Of course, like I said before, I'm not the violent kind. I couldn't lift a finger in return. Not like Barney Corriden, whose first reaction was to pull the gun and kill. I'm not like that at all.

More intellectual type, yes. Ha ha! Ha ha ha!

Hey! Mister! You left your drink! What're you running for, like the devil was after you?

THE END

WHAT HAVE WE GOT?



By



TOM LYNCH

AS BLESSED as the United States has been in terms of natural resources, the future looks dim indeed—in some respects, almost desperate. Certain fundamental materials of course we have in abundance. Coal, for example exists in limitless quantities. Iron ore of lower grades is plentiful too. Aluminum is inexhaustible. Water is endless.

But look at some familiar materials which we're definitely running out of. Copper, the heart of electricity is going fast even though we're re-working very low grade deposits. Our consumption is so enormous in our electrical civilization that we can't find enough. Fortunately aluminum can replace copper to a great extent and this will be our life-saver in that regard.

Oil which is going fast can be replaced too. First there is a great deal of oil-bearing shale available, a rock-like substance which when heated in retorts will deliver as much as thirty per cent of its weight in the form of a crude oil. This promising development is going ahead full blast. The government can see the handwriting on the wall.

Another source of oil of course is coal. Using the Fischer-Tropsch process coal can be converted into oil. The Germans and the Russians do this on a large scale and when the time comes we will emulate them. Synthetic rubber is no problem either and already we use it in preference very often to the natural product. Since coal is a prime medium here, our resources in this respect are inexhaustible also.

Manganese that necessary requirement of alloy steel is in short supply but we still have large quantities of low-grade

ores. In fact, in the matter of metals-shortage, we will problem-conquer the difficulty by substituting other metals and alloys which do exist in quantity. Alloys yet unknown plus metals like beryllium etc. will do the job.

Even though our resources thus are not limitless except in a few instances, we can generally find substitutes and replacements which do the job as well as the original materials if not better. Tin, which is a vital bearing material and a coating for sheet steel, can be replaced by silver which we have in abundance. For the steel-coating part of tin's work, we use plastic developments.

The water level of the country is going down rapidly and our expanding economy requires gigantic quantities of this vital fluid. For those in the Great Lakes region there is no problem. But in the west, water must be found. Since the sea is an inexhaustible source we must look to a cheap chemical or physical method of separating salt from sea water. That this will come is unquestionable. Necessity demands it and necessity is the mother of invention!

Thus, in summarizing the picture for the future we can see that replacements and substitutes, *ersatz* creations of one kind or another can be found. Therefore the laboratories and technical libraries are making a concerted effort to evaluate our probable condition now and in the future. With our indomitable energy you may be sure that we'll find a way to survive these shortages.

Only time can tell, for example, what a radical change may be wrought in the power picture when atomic energy is fully developed! And think of its creative possibilities!

LIGHT GETS AROUND!

By
PETER JAFFE

EVER SINCE Roemer first measured the velocity of light by observing the transit time for an occultation of one of the Jovian moons, the boys have been kicking that speed around, usually changing it every now and then. Dr. Michelson's famous experiments during the twenties with a huge mile-long oil-pipe vacuum tube and a high speed rotating mirror set the speed of light at 186,271 miles per second. The chances are that this would have remained the standard if the study of radio and radar had not advanced at such a rapid rate.

In the last twenty years therefore that have been numerous determinations of the speed of light using radiometric instead of astronomic methods, all of them increasing the accuracy with which we know this figure. The last American measurements using distances of twenty or thirty feet, vacuum tubes and radio waves brought the margin of error to within plus or minus four miles! That's tagging the number rather nicely.

Unfortunately it isn't quite enough these days because of the demands of radar apparatus. For long range radar, it's fine, but for short range radar such as is used aboard ships for detecting buoys and objects in a narrow channel at dis-

tances of only a few hundred feet and for anti-aircraft and guided missile work, such radar can be no more accurate than the knowledge of the speed of the radio waves it's sending out. Consequently they've been working overtime to nail it still closer.

From England comes the most recent advance which tacks some eleven miles per second to the velocity. The Briton, using a small radio tube and a range of only seven inches brings the figure out as 186,282 miles per second. Obviously this makes a big difference. As yet it hasn't been officially accepted, but it will be very likely as further checks are made here.

Because the speed depends too on the accuracy to which time is known, the chances are that the ultimate speed of light will be defined in terms of a second derived from the vibrations of the ammonia molecule which happens to resonate to certain high frequencies.

If the accuracy continues to improve we will eventually be able to use radar waves for measuring distances as small as yards with a high degree of accuracy. They may even go so far as to equip cars and buses with the ultra-short range radar! "Take it easy, Joe, the 'scope shows a pedestrian on your left fender...!"

ATOMIC OSTRICH

By BERNARD LYTHE

RECENTLY newspapers and magazines have been full of plans for an assorted variety of "atomic-bombproof" shelters, presumably to be constructed by homeowners or by housing projects. In some respects this seems a little like rushing things and in others it seems to smack of the ostrich burying his head in the sand. The term "atomic-bombproof" should not be used. Almost no shelter conceivable is really "proof"; it is merely resistant. Unless you burrow very deep into the Earth, a bomb can get at you—or its lethal emanations and gaseous products.

But there is a legitimate use for some of the plans which usually show ingenious concrete structures, set low into the ground and which afford a great deal of protection against many of the hazards of the Bomb. Most of these shelters, from the elaborate ones to the simple structures consisting of a reinforced cellar, employ the principle of a concrete wall of a couple of feet in thickness as the prime object between you and the flare and radiation. Scientifically this is sound.

Given even a little warning a resident can get into his impermeable shelter and

be assured of protection from many of the devastating phases of the Bomb, but outside of complete isolated air-conditioning, fighting radioactive dust caused by the Bomb, is impossible. Never-the-less, we can look rather calmly at the thought of an attack because we know the powers and the limitations of the Bomb. As for fighting the radioactive dust (one of the really great hazards) we know that time—a relatively short time—is required for the dusts to settle to Earth. By that time rescue teams will be at work.

The sum and substance of the average individual's protection against the Bomb, now seems to be a matter of concealing himself against the flare and radiation and then waiting out the activities of the alert squads who will inform him of what is and what is not safe in the line of food, water, and transportation channels. A good deal of the unreasoning fear of the Bomb has been wiped out by the logical approach with which the authorities have considered defenses. As long as panic doesn't run away with the future combatant, he stands a good chance to survive!

NO MEDAL FOR

When the last two men on earth face each other across a battlefield, will they be willing to admit that war is for fools?



Even as he realized the stranger need not die, Manning's hand was finding a weapon

CAPTAIN MANNING



By William P. McGivern

ON THE MORNING that contact with N sector was broken, Captain Manning was resting in his lead-walled cubicle about a mile beneath what was once Butte, Montana. He didn't know then that N was out of contact, of course. He knew that K and L were gone—they'd been out of touch two months now—but he didn't know about N.

Captain Manning had been ten years old when the war started. Now he was thirty-six, a lean, graying man with tired eyes and unhealthy looking

skin. The vitamins and sun lamps never seemed to help him much. He hadn't been above ground, except for a few short plane trips, in more than twenty years and he sometimes felt that one breath of real air and a touch of sunlight would do more for him than all the artificial stimulants in the world.

That was silly, of course. It was demonstrable by scientific tables that human beings thrived in an underground existence. Yet Captain Manning still yearned occasionally for a

look at the sky and the smell of leaves. A psychiatrist once had told him that his feeling was natural and normal, and to stop worrying about it. Living underground was an adjustment to the facts of the war, and while adjustments were necessary and practical, one didn't have to like them *in toto*. That was the way the psychiatrist had put it. Captain Manning had liked the psychiatrist, a bluff, capable man with the odd name of Blackapple. Dr. Blackapple had left several years ago, now, but his replacement had never arrived.

The psychiatric corps was understaffed and overworked, of course, since life underground had precipitated all sorts of emotional and psychic disorders; but Captain Manning had never forgiven N sector for not sending some one to take Blackapple's place. Psychiatrists weren't the best-natured people in the world, in fact they were notoriously crabby and irritable, but it was oddly sustaining to know that they were around.

Captain Manning got up from his bunk and prepared to shave, reflecting that the loss of sectors K and L had been an unexpected boon to their unit. It eased the strain enormously, since there were just two of them now, the colonel and himself, to handle a communications point that had once been staffed with twenty-three men.

They weren't sure of course that K and L were gone in the final sense of the word. It could be simply a mechanical breakdown, although that was a slim probability. K—the British Isles and parts of Europe—had taken a terrific blast about a year ago and it was common gossip that they were in a bad way. L—parts of China, Indonesia, and a few stations in the Pacific—had always been in one mess after another, so their present difficulties were not remarkable.

However, in spite of the easier work schedule, Captain Manning missed the chap from K, a Major Blinn. Blinn had a deep hard voice with undercurrents of humor running through it like a bright thread in tweed cloth. Blinn was younger than Captain Manning, twenty-eight, and of course knew nothing at all of life above the ground. He asked endless questions and Manning told him all he could remember—of the look of the Earth's curve from a height, of ships and water, traffic, trees, birds, and the feel of wind. The thought of wind fascinated Blinn. Wind, cold, capricious wind blowing hard, then soft, disappearing to return in a sudden swift blast; the inconsistency of it delighted the Englishman.

CAPTAIN MANNING finished shaving, dressed and had breakfast—two red pills and one blue with a glass of water—and then walked along the solid steel tunnel to the communications center.

Colonel Hewitt, a short, stocky man with thin gray hair and irritable eyes, was staring at sector N's message panel when Captain Manning entered. He nodded abruptly and pointed to the panel which was dark. "What do you make of that?" he asked in a far too casual voice.

Captain Manning stared at the dark panel for a few seconds without comprehension. The implications were too enormous to grasp. Finally, he said, "When did it happen?"

"About two hours ago."

"Is our equipment all right?"

"Yes, yes, of course it's all right," the colonel answered, and glared at him. "N is out—gone. That's all."

All! Sector N was merely Headquarters for the United States and South America. It also controlled Canada and Hawaii before those areas were eliminated. It was located near

Guatemala. But N couldn't be in trouble. It just couldn't. Commands from Sector N had arranged Captain Manning's life since he was a boy. The planning for all sectors was done at N, and Congress and Parliament had convened there until their decisions and arguments became so patently pointless that they adjourned for the duration.

"They had trouble there a few months ago, remember?" Colonel Hewitt said, and glared at Manning again as if he were responsible for it.

Captain Manning thought, K, L, and now N! That left only two sectors remaining—Y and M. Y was a chain of islands in the Pacific with a central base at Australia. He glanced at Y's panel quickly, saw that it was dark.

"Yes, it's gone too," the colonel said, intercepting his look. "It's faded with N. That leaves M."

M sector. There were no personnel there. M was a gigantic man-made island in the Atlantic, operated by remote control. It was totally self-sufficient. It made fuel, bombs, missiles; and its launching sites operated around the clock, needing only the firing data from sector N for directional purposes.

Captain Manning remembered that when M had been put into operation everyone thought there might be a chance for an armistice, peace. But the enemy developed M sectors, too, and the stalemate continued.

Now only M was left. Pure function, independent of cause and effect, had outlasted everything else.

"Have you checked N with the detector?" Manning asked suddenly.

"No, no, I forgot," the colonel said, relief in his voice.

They went into an adjoining room and Manning snapped on an overhead light. On one wall was a circular screen and attached to its face was an indicator needle, resting now in

the vertical position.

Colonel Hewitt snapped a switch on an instrument panel at the base of the screen, and watched hopefully as the indicator needle moved toward the quadrant in which sector N lay.

Based on the principle of radar, the detector reacted to the electrical impulses of the human mind, and was employed in artillery and bombing computations to determine maximum enemy density at given points. Manning realized that they hadn't used it since their unit had been used as a training section. That was several years back.

He glanced over the colonel's shoulder and saw that the response from N was feeble and erratic.

"Damn it!" the colonel cried, swinging on him angrily. "This can't be right, Manning."

"Try the enemy sectors," Manning suggested.

The indicator needle described a one hundred and eighty degree arc to reach the region of the enemy. There the response was lively and firm.

The colonel rubbed his forehead with his fingertips. "It—it just doesn't seem possible," he muttered.

There was little point in arguing with the evidence, Manning felt. It was quite plain that sector N was done for. And it was equally plain that the enemy was in excellent shape.

THEY RETURNED to the communications center where the colonel stood frowning at N's dark panel. "What do you think happened?" he said, in a strangely weak voice.

"We had trouble a few months ago," Manning said. "It must have been worse than we thought."

"Yes, I suppose," the colonel said, shaking his head.

Captain Manning shrugged. "Well, there's nothing we can do now. Why

don't you get some sleep? I'll call you if anything happens."

When the colonel had gone, Manning checked the equipment, noted that the regular signal was being beamed to all sectors, and then sat down and wondered how to pass the time.

Once they had been busy here, transmitting weather data, scrambling and unscrambling data between various sectors, but their operations had become more limited each year and now their only job was to wait for orders which never came.

Manning wondered if the war was coming to an end. Maybe it *was* over, the enemy victorious. That seemed a likely conclusion with K, L, Y and N gone. His interest was casual since the war had not concerned him very much for the past fifteen or twenty years. That was true with most people, of course. The war was like the wind or rain, a thing that existed arbitrarily, beyond the will or control of those exposed to it.

Dr. Blackapple had once told him that the indifference of the people to the war was the most grave phenomenon he had observed.

"The unique attribute of men is that they care about things," Dr. Blackapple had said, but that made no sense to Captain Manning.

Now he thought about the enemy, believing suddenly that the war was over. He knew who the enemy was, by name at least, but the enemy had changed a dozen times since the start of the war, and he had long since stopped following their torturous alignments, realignments, divisions and subdivisions.

Captain Manning's father had talked a lot about the enemy before the war, predicting trouble of a horrendous nature, and yet, when the trouble did come, it came from an unlikely and unexpected source. His

father had come home one night with a paper that announced in black, screaming headlines that an atomic bomb had been used in an otherwise insignificant border squabble in South America.

That had set off an emotional chain reaction in America. People with money had shelters built in their back yards or in inaccessible areas which were thought at that time to be more safe than densely populated regions.

Real estate combines constructed hotels hundreds of feet under the ground, complete with night clubs, swimming pools and tennis courts, and to these subterranean palaces the rich came in hysterically gay droves. However, human safety became an explosive issue overnight and the underground retreats of the rich were bitterly criticized. Certain groups defended them, asserting that privately owned atom shelters were a symbol of free American enterprise, while the opposition maintained that the welfare of all the people came first, even though that meant abrogating traditional constitutional rights.

It was an academic point after the first bomb hit America. Then it became obvious that the job of getting a nation underground couldn't be done without subordinating every ounce of industrial and human power to a master blueprint enforced by the government. Rich and poor wanted something over their heads, and they didn't care who did the job, as long as it was done fast.

CAPTAIN MANNING got up from his chair, looked over the equipment again, initialed the report chart and then sat down and stared at sector N's dark panel.

He thought: now there's no one left but the enemy. And the colonel, of course. Involuntarily, he glanced to the short wave sets. He could get in

touch with the enemy quite easily. But what would be the point? Captain Manning didn't care about the enemy. He didn't care about anything.

After all, how was it possible to care about a war whose very nature was inconclusive, pointless? At the outbreak, he recalled, there had been slogans and speeches and martial music, and everybody was tremendously excited and interested. News, news, news! That was all one could get on television or radio.

When cities were smashed to powder the news was screamed and flashed into every home. Casualties were estimated, damages evaluated and the significance of the destruction was analyzed by experts. Captain Manning remembered the tension he felt when London was eliminated, and then the shocking news about New York. But as the years passed and events repeated themselves, the news fell into a gray, predictable pattern. Things happened, and caused other things to happen, and so on. People lost interest as New York was followed by Lima, Stalingrad, Quebec, Chicago, Brussels, Hawaii, Detroit, Butte, Shanghai, Melbourne, San Francisco—the litany was endless. The war lost its element of tension and surprise. As the years dragged on it became a flat, stale affair, and people tried to live around it anyway they could.

Colonel Hewitt appeared in the doorway, his white hair rumpled and his tunic collar open. He glanced at the dark panels and said unnecessarily, "No change, eh?"

Manning shook his head. He and the colonel had never gotten on well, and he decided now it was because the old man was a fool. He had never adjusted to the war, but still rambled on about what things had been like before it started. About his wife,

and the job he had had with an insurance company, and his teen-aged boy and married daughter. The colonel was frequently irritable, inconsistent, querulous and tumultuous. He had to be concerned and involved with life. Manning perceived with some charity that the old man was conditioned by events before the war in a society that had not quite surrendered to mindless routine.

Now the colonel glared at him and said, "What the devil does this mean, Manning? Are the people on all our sectors dead? If they're not dead, why don't they answer our signals? Are the signals strong enough?"

"Yes, they're strong enough," Manning said.

"Damn," the colonel said explosively. He paced the floor, a choleric red stain spreading upward from his throat. "That's just like our double-damned top echelon," he said savagely. "It's always the same, I tell you, Manning. They plan and decide and act wise as owls, so far above us they don't even see us, but when the trouble comes—where are they? Damn it, where are they?"

Captain Manning shrugged. "They're probably dead," he said.

The colonel looked at him and then turned away, clenching and unclenching his fists. "I don't understand you. I never have. I have never understood you younger men. You say a thing like that as you'd ask for a glass of water. You don't care one way or the other, do you?" He wheeled suddenly, a beseeching, frightened look on his face. "It's unnatural. None of you care."

Captain Manning said quietly, "Well, there's nothing much we can do anyway."

"I suppose you're right," the colonel said dully. He turned away with a helpless shrug. "I—I'm going back to my room for a while."

ALONE, Captain Manning checked the instruments again and then sat down and stretched his legs out comfortably. He found himself feeling sorry for the colonel. What had the old boy said? Unnatural. That was it.

Captain Manning smiled. He thought of a girl he had known in a math class when he was seventeen. Now, after nineteen grey and uneventful years, he could still remember her soft hair and slender, patient hands. Nothing had come of their brief friendship. He had gone off to communications school and hadn't heard from her again. It hadn't been too difficult. The ODC—Office of Diet Control—was by then treating all food with a sex repressive. Untreated food was available under prescribed circumstances, and there was, of course, a lively black market in it at all times. But most of the people didn't need it, and didn't want it in fact, for the pressures it released were more trouble than they were worth. Captain Manning wondered what had become of the girl. Nancy, her name was.

Human nature didn't change, Captain Manning knew, because it didn't exist. What man became was the result of capricious circumstance.

He checked the equipment again, studying sector N's dark panel in particular. It still didn't seem possible that N was gone. What all-destructive weapon had the enemy discovered? And how had his side overlooked it?

A weak cry from the corridor made him start. He hurried out and found Colonel Hewitt slumped on the floor clutching his breast with both hands.

"Heart," he gasped. "Medicine..."

Captain Manning ran down the corridor to the colonel's room, grabbed a bottle of tablets and a glass of water from the bedside table, and then hurried back to where the old

man lay moaning.

He got a tablet into his mouth and forced water in after it. The colonel choked once and Captain Manning thought he was done for. But the stimulant caught hold in time. The breathing came easier.

"I'll help you to your room," Captain Manning said.

Later, Manning returned to the communications room. He didn't think the old man would last long. He was comfortable but nothing else could be done for him. Automatically, he checked the instruments and message panels. K, L, Y, and N were still out. M's signal was flashing methodically.

Captain Manning stared at it for a few seconds, frowning. Why, if the enemy were victorious, hadn't he knocked out M? The enemy couldn't ignore M. That would be against the law, the law of total war, which meant total destruction.

He walked over to the short-wave set and put a tentative hand on one switch. The idea of sending a signal to the enemy was curiously exciting. He smiled for a few seconds for no particular reason, and then flipped the switch that put it in action.

The enemy would get the signal instantly and locate the section almost as quickly. But Captain Manning didn't care.

He put a headset on and sat down before the radio. In a clear voice he gave his position, call letters and identification. Then he said, "Come in, please. Standing by."

THE ROOM was quiet and still.

Captain Manning sat motionless, waiting for the enemy's answer. But no answer came. He repeated the message three times and then, frowning, removed the headset and got to his feet. For a few moments he paced the floor indecisively. Into all sectors of the earth and to all stations on land,

sea or in the sky, the messages from the panels and radio were being sent; and there was no answer. The world was still as death. Only M, the robot, was responding.

Suddenly, Manning turned and hurried into the adjoining room. Facing the director screen he wondered why this hadn't occurred to him immediately. He set the gauges, and snapped on the switch, and then raised his eyes as the indicator needle began a slow sweep of the screen.

There was no response from N. None from Y, L, or K. Fascinated, he watched the needle enter the enemy quadrant, and when he glanced at the gauges he felt a definite physical shock. There was no response from the enemy regions.

Everyone must be dead. The more he thought about it the more plausible it seemed. Probably N had launched a gigantic counter-attack in its own death throes, or maybe the two antagonists had simultaneously discovered the ultimate in destructive agents, and simultaneously unleashed it on each other.

Manning turned off the detector. The idea that the war was over, that everyone was dead struck him as preposterous. And slightly amusing.

Later, he looked in on the colonel and found the old man resting quietly.

"Nothing is happening," he said. He didn't want to disturb him with what he'd learned.

"It's all over," the colonel said wearily. "If they aren't answering, it's because there's no one alive to answer. They're all dead."

Manning didn't answer.

The colonel was silent for several moments and then he began to speak of his wife in a calm, lucid manner. He talked of how well she looked in blue frocks, and how well she drove a car, and how their home seemed to brighten up when she came in. Man-

ning, bending low over the old man, saw that his eyes were blank and unseeing. Two hours later the colonel went into a coma and died without regaining consciousness.

Manning injected preservative fluid into the body at several points and then went out and closed the door behind him. He felt no regret at the colonel's death, but only a slight relief that the old man had gone without knowing the final pointlessness of the war to which he had given his life.

Now, Manning thought with a faint smile, he was the last man on earth. He walked back to the communications center feeling that it was a pointless distinction.

FOR TWO DAYS he followed his regular schedule because he had nothing else to do and habit was strong. The hours passed uneventfully. It wasn't until the start of the third day—when the ration machine stopped working—that he knew he couldn't live indefinitely in this underground retreat.

Manning hadn't been trained to operate or repair the ration machine, his knowledge about it was theoretical. He understood that air, water and infra-red rays were transformed in some manner into tablets that supplied ninety per cent of the body's needs. But the colonel, who had taken a special six-month course in the maintenance of the machine, had been responsible for its operation and always kept it functioning flawlessly.

Also Manning noticed that he had begun to perspire, which meant that the air-conditioning unit was not functioning properly. He looked into that trouble and was able to fix it—it was only a stuck valve, fortunately—but had the difficulty been more serious he would have been helpless.

The situation was wryly amusing. He had lived his entire sentient life

with the conviction that machines served him; yet, in reality, the opposite was true.

There were many things Manning knew about his specialty, communications; but his knowledge wasn't general, and he knew that he'd have to go above ground if he wanted to survive.

Once that thought occurred to him he was filled with a strange excitement. It wasn't survival that mattered so much, but he wanted to see the sun and sky, to be above ground once more.

He made the preparations hastily. Impregnated clothing, a Geiger watch, helmet, pistol, and a bottle of rations. That was all. But once he was ready to go above, he paused, suddenly nervous. He couldn't shake off a lifetime of conditioning so quickly. Above was the arena, the deadly battleground he had been taught to fear. Open spaces, plateaus and meadows were the common symbols of his nightmares.

But now there was nothing to fear, he thought, reasoning the matter calmly. Now there was nothing above to hurt him. Everyone was dead. Yet Manning was still uneasy. Finally, he walked back to the detector screen, determining to make sure that there was no evidence of human life in the area.

He snapped on the switch and watched the indicator needle begin its circle. His jittery feeling passed as all the gauges remained at zero. Then, suddenly, there was a response. A tiny, one-unit response. Manning bent over the gauge, hardly believing his eyes. But, yes, it was true. One human being still lived. It couldn't be his own impulse the machine was responding to, he knew. The detector had an automatic correction for its operator. Somehow he had missed this response in his last check.

Excited, he turned to a directional gauge and plotted the position of the impulse on a grid. He made a pin-point calculation and saw that this last remaining human being was in the immediate area, not more than half a mile from the entrance of the tunnel Manning would use in going above.

For several seconds he stood thinking about this person who had somehow escaped the universal destruction. Friend or foe, man or woman, he had no way of knowing. But he began to feel a curious, happy anticipation as he hurried back to the elevator.

By himself Manning knew he could do little but prolong his own life. But as he shot upward he thought that, with another human being to work with, it could be different. Together they might find a habitable area and, pooling their knowledge, work out some sort of free, safe existence. They could stay above the ground permanently, perhaps, and build shelters and learn how to farm the land.

THE HEAVY leaden door swung outward with a protesting creak and Manning stepped into sunlight, pale, golden-yellow, autumn sunlight. He stood still, feet rooted in the velvety gray ash that covered the ground, and stared upward at the cold cloud-flecked sky.

They hadn't destroyed the sky, he thought. Probably because they hadn't known how. Had they found a way to sunder it, to smash it and reshape it in the form and color of death, then nothing could have saved the sky.

On all sides of him the earth rolled away in waves of dry, flaky ash, with here and there fragments of buildings jutting up like the masts of sunken ships. The Geiger counter indicated that the area was safe, so he removed his helmet and let the wind

blow against his face. He remembered the Englishman, Blinn, then, who couldn't imagine the wind, couldn't understand its inconstancy.

Manning turned slowly, looking for a human figure. But he saw no one. The horizons were desolated, unbroken. Then Manning saw a hill in the distance and set off for it with rapid strides, thinking that from there he would have a view for miles.

He topped a shallow rise after walking about fifty yards and saw a figure coming toward him, a man trudging up the incline, his head bowed, his arms working jerkily, tiredly. Manning threw himself down with the speed of a frightened animal. The man hadn't seen him. His heart was hammering painfully and the dry taste of fear was on his tongue. Why was he trembling? Why was he afraid? He asked himself the questions in a black panic. This man was like himself, a brother. He was the one Manning had come up to meet. The one he had happily hoped to live with in harmony.

Inching forward, he peered down from the crest of the hill. The climbing man had his helmet slung over his back and his curly blond hair glinted in the sunlight. Manning could see his insignia on a shoulder patch: Sector N, air arm.

Manning instinctively controlled his breathing while watching the climbing man and now, as he backed down from the crest of the rise, his movements were stealthy and silent. His fingers fumbled under the gray ash and found a smooth rock.

Gripping it, he suddenly noticed how perfectly the hand and the rock complemented each other. They were made to go together, he thought with excitement. The hand, so clumsy with a book or a flower, was transformed by a rock into an instrument of grace and meaning.

Now he heard the man's laboring

footsteps in the terrible stillness, and the fear caught at his throat again, almost cutting off his breath.

The man was close now, about ten feet from the crest, Manning judged. Eight.....six.....four.

Manning leaped to his feet and drew back the rock in one savage, coordinated motion.

The man cried, "God!" in fright and bewilderment, and threw out his hands in an instinctive gesture.

Manning saw the terror-twisted, boyish face, the blond, curling hair, damp with sweat near the scalp, and the thick lashes over the blue eyes. He shouted hoarsely and hurled the rock with all his strength. It struck the man squarely on the forehead and he fell backward, pressing both hands to his bleeding face and crying out.

Manning walked down the incline to where the man lay sprawled, and saw that the frontal area of his skull was fractured. Slender splinters of bone pressed through the flesh and blood darkened the ash under the man's head.

He straightened slowly, the fear and tension gone now, his body trembling weakly. He felt drained and empty. This murder had been fantastic, incredible, he realized.

For several minutes he stared at the still figure of the young man. Then his lips twisted bitterly. No, it hadn't been fantastic. It had been inevitable, fitting and typical.

He stood in the lonely silence staring at the desolate sweep of the earth broken only by the fragments of shattered buildings.

This was peace, he thought. The only possible peace.

Manning walked aimlessly toward the hill in the distance, his feet kicking up clouds of flaky ash, and as he walked he was unaware that his hand was fumbling slowly, inevitably, for the pistol at his waist.

WHOM the GODS DESTROY

By P. F. Costello

A tiny black tube was the force behind Kirkland's evil powers. But he forgot that machines can have no loyalty—and today's master can be tomorrow's slave.





HE WAS A big man, big all over, with a high rounded forehead, coffee-colored hair, and startlingly pale eyes that bulged slightly in their sockets.

He stood at the reception desk in the expensively decorated office and stared intently at the pretty brunette behind the switchboard.

"The name is Kirkland, John Kirkland," he said in a controlled but unmistakably angry voice. "When may I see Mr. Trelawny? I've been waiting three hours."

"I'm sorry, Mr. Kirkland. There are still half a dozen others ahead of you, and this is Mr. Trelawny's busy day." The receptionist was accustomed to brushing off people of all types, and she usually did it with icy dispatch; but something about Mr. Kirkland's

bearing, something in his bulging hypnotic eyes, made her soften her voice.

Kirkland strode back to his chair and sat down. There were nine others waiting in the long outer office, and most of them carried brief cases or bulging Manila folders. From where Kirkland sat, the inverted letters on the glazed doorway read: STNEMT-SEVNI. Investments, thought Kirkland bitterly. From what he'd seen so far, Trelawny invested in nothing but other people's time.

He lit a cigarette to curb his impatience and anger; and as he did he saw that a button was hanging loose from his sleeve and that the edge of his cuff was frayed. A muscle jerked in Kirkland's jaw; he pulled the button off and put it away hastily in his vest pocket. He could sew it back on tonight. Kirkland hated being shabbily dressed, hated being treated as a person of no consequence, and now, as he thought about the button and his frayed cuff, the anger flowed up in him, hot and strong, and he twisted his big hands together and cursed under his breath.

The man beside him looked up from his paper. He said: "It is a long wait, yes?"

Kirkland turned and saw another of life's rabbits: a small, anxious-looking man, with scanty hair, a lined forehead, and a weak, indecisive mouth. He wore a shiny blue suit, and his pinch-nez glasses and gold watch chain gave him an old-fashioned appearance, like a picture one might find in a dusty album.

"Yes, it's a long wait," Kirkland said, and put a note of finality into his tone to discourage conversation.

It didn't get across to the little man. "My name is Rilke, Dr. Johann Rilke. I have something very interesting to show Mr. Trelawny if he will ever see me." There was a foreign

flavor to his words. Mid-European, Kirkland guessed.

"We all have, or think we have," Kirkland said. "That's why we're here."

"That is so, of course," Dr. Rilke said, hasty in his agreement.

THE BRUNETTE receptionist looked up from her switchboard. "Mr. Trelawny will not be able to see anyone else today. He asked me to thank you for your patience, and to forgive him for not being able to fit you all into his schedule."

Kirkland got wearily to his feet. Another day wasted. Another day of not even being able to talk to Trelawny, to show him his plans for new developments in plastics.

He walked to the elevators with the rest of the men, but keeping apart from them. They were trusting, hopeful fools, all destined for failure; but he was different. He needed only one break, one bit of luck, and his natural superiority would quickly assert itself, quickly send him ahead of the miserable people who now stood in his way.

In the street he found Dr. Rilke at his side. "Perhaps you would have a cup of coffee with me?" the doctor said.

Kirkland had precious little money. If he could stick the doctor for an order of toast with the coffee it would do for supper.

"Very well," he said, glancing at his watch. "But I don't have much time."

They found stools at a luncheonette and Kirkland ordered toast and coffee, and then, overcome by the smells of cooking, he asked for bacon and eggs. Dr. Rilke had coffee, black.

Kirkland ate ravenously. His body required considerable nourishment, but frequently he was forced to go without food, decent food, for days at

a stretch. That was what angered him so terribly; that he, whose appetites were so keen, whose enjoyment of fine things was so superior to that of most other men, should be denied even the elementals of pleasant living. And burning in him even more hotly, was his indignation at not being listened to, and submitted to, by the fools and dolts he met every day of his life. He had the brains, the energy, the ambition, to mould empires; but no one would let him.

But now, as he finished the last of his food, he was in a somewhat better mood than usual. To repay the doctor for his meal, he decided to treat him as an equal.

"What sort of work are you interested in?" he said.

Dr. Rilke shrugged. "I have worked most of my life to determine the nature of the mind and its operations, but it seems now that my experimentation will be fruitless. I cannot get anyone even to listen to what I have discovered."

"Well, what *have* you discovered?"

"I have an instrument that is capable of destroying a person's will," Dr. Rilke said, and smiled at Kirkland as if afraid of being taken too seriously.

"Are you being humorous?" Kirkland said. He had a fear of being made a laughingstock; and Rilke's nervous smile irritated him, made him uneasy.

"No, of course not," Dr. Rilke said hastily. "I think my developments would be of great value to surgeons and psychiatrists; but I cannot raise the necessary capital to perfect my machine."

"This machine of yours can destroy a person's will?"

"Yes, that is correct."

Kirkland ate the last of his toast, his mind racing pleasurably. He didn't believe Dr. Rilke, of course; but it

was interesting to speculate on a device that would eliminate another's will. That was the trouble with the world. Will power! Every bit of human flotsam had a will, could do as he wished, could ignore and contradict his superiors.

"What happens to the people whose wills have been destroyed?" he asked.

"Nothing at all. They are unchanged in every other way, except that they have no power to decide their own conduct or actions."

Kirkland smiled. "They will do what they're told?"

"Yes, they are hyper-sensitive to suggestion." Dr. Rilke smiled in a depreciating manner. "My theories are rather intricate, and I don't feel I can present them adequately in so—hasty—a manner."

"Come to my hotel room now," Kirkland said, rising. "Pay the check first," he said, as Dr. Rilke got to his feet. "This project of yours interests me. I wish to know more about it." Kirkland no longer saw the need to treat Rilke as an equal. He snapped the orders at him brusquely. When they went outside Kirkland saw that the doctor was carrying a large suitcase of stout construction with reinforced corners.

"We shall take a cab," Kirkland said, and hailed the first one that came along. He climbed in, feeling peaceful and strong...

"FOR PURPOSES of illustration, you might say it affects the mind as a pre-frontal lobotomy does. Only my machine accomplishes its purpose by electrical currents, and, of course, it does much more than a lobotomy."

Dr. Rilke was standing at a table in Kirkland's small but tidy room. On the table rested a machine that looked somewhat like a motion picture projector. Its casing was of black metal,

and at the front there was a tube that projected about ten inches. On top of the machine was a switch and two rheostats.

Kirkland strode up and down the floor, occasionally running a hand through his hair. There was a tense, exultant expression on his blunt face, and his bulging eyes were shining with excitement.

"I understand, I understand," he said, in a charged voice. "It's a tremendous concept. Tremendous! Where are the records of your tests? I must see them immediately."

"Tests?"

"Yes, yes," Kirkland said impatiently. "The tests! What have been the reactions of the people you've tried the machine on? Can't you understand English?"

"I have never used a human being for testing purposes," Dr. Rilke said; his tone was somewhat apologetic.

Kirkland stopped in his tracks, glared at the doctor from shining hypnotic eyes. "You've never tried the machine? You don't know if it works?"

"My theory is without flaws," Dr. Rilke said stiffly. "I never had the opportunity to test it, however. We had not perfected the model machine before the war—" The doctor stopped, wet his lips. His eyes shifted away from Kirkland.

Kirkland caught the doctor's shoulders in his big hands. "Before the war was over, eh? You were a Hitler scientist? Weren't you? Damn it, answer me!"

"I—they made me work for them," Dr. Rilke said, trembling in Kirkland's grasp. "I was no Nazi, I swear it."

"Of course not," Kirkland said in a soothing voice. "You did work on this machine for them though; and before they could supply you with some human guinea pigs the war ended."

He released the doctor and resumed his pacing. "A pity," he muttered. "All those useless human beings to experiment with and then—" He snapped his fingers. "The chance gone!"

KIRKLAND'S heart was pumping harder than usual and his cheeks were flushed with excitement. The prospect that had been dangled so invitingly before his eyes had been enough to inflame all of his latent needs and ambitions. Something to make people do what you wanted! He crashed a fist into his open palm and groaned aloud. That was what he needed, what the world needed! The brains, the drive, the ambition—he had them in abundance! All he needed was enough automatons to work them out.

Suddenly Kirkland turned and strode to the door. He opened it and looked into the corridor, not sure what he was looking for, or what he wanted.

A girl came out of a room several doors away and walked briskly toward him, and Kirkland then realized why he had stepped into the corridor.

He recognized the girl; she and her sister ran a stenographic service in the hotel. Their names were Denise and Carol Masterson; and this was Carol. She carried a notebook in her hand, and everything about her, from her navy-blue suit to her patent-leather pumps, was crisp, efficient, and intelligent. She had dark hair, softly waved, a fair complexion, and a slim, healthy body.

With a brief, impersonal smile at Kirkland, she walked past him toward the elevators.

"Oh, Miss Masterson," he called. "May I see you a moment?"

"Yes, what is it?" she said, turning; and then as he made no move to leave his doorway, she walked back to him, an expression of polite curiosity on her face.

"I was wondering if you'd be able to help me out for a few minutes," he said, smiling broadly. "My friend, Dr. Rilke, and I are conducting a little experiment and we find the need of a third person. Could you come into my room for a moment please?"

The girl glanced over Kirkland's shoulder and saw Dr. Rilke, looking the soul of old-fashioned respectability. She said: "I'll be glad to help out, Mr.—" She paused.

"Kirkland is the name."

"However, I don't have too much time." Carol said, glancing at her wrist-watch.

"This won't take a moment." Kirkland ushered the girl into the room and presented her to Dr. Rilke. "Miss Masterson has consented to help us out with our experiment, doctor."

Dr. Rilke wet his lips nervously. "That is very good of you, young lady," he said to the girl. His eyes met Kirkland's, and he shook his head quickly, frantically. "However, I'm afraid we're not quite ready at the moment."

"We are quite ready," Kirkland said in a firm voice. "Would you sit here for just a moment?" he said to the girl, indicating a chair at the table.

The girl sat down slowly. There was something in Dr. Rilke's manner that made her uneasy. "This won't take long, I hope," she said.

KIRKLAND was caught in an excitement almost too keen to bear. His hands trembled slightly as he turned the machine and pointed the projecting tube at the girl's forehead. He swallowed to clear the sudden dryness from his throat, and said, "No, no, it won't take long at all, Miss Masterson. It's wonderful of you to help us out this way, perfectly wonderful. Dr. Rilke has been working for years on a device to—er—to test a person's eyesight. There will be a

beam from the end of this tube when I throw the switch, and that's all there is to it. Yes, all there is to it. You may close your eyes if you like. I can't tell you how helpful you're being, Miss Masterson." Kirkland realized that he was talking too much, that he was literally babbling in his excitement; but he couldn't stop himself. "Now are you ready, Miss Masterson?"

"Yes, I'm quite ready," Carol said.

"Excellent!" Kirkland flipped the switch and a beam of blue light struck the girl between the eyes. She winced and leaned back in the chair, turning her head slightly.

"That's rather bright," she said.

"You'll get used to it," Kirkland said, hastily, soothingly. "How long will it take, doctor?"

"At least half an hour," Rilke said. He was watching the girl intently, his forehead furrowed with anxiety.

"I'm sorry, but I can't possibly stay that long," Carol said. "I have letters to type for the next mail collection. You'll have to excuse me, Mr. Kirkland."

"Please wait another few minutes," Kirkland said imploringly. "I'm sure the doctor's estimate is rather pessimistic. You know how scientists are, I'm sure. Always taking the dim view." He laughed and rubbed his damp palms along the sides of his trousers. The thought that this girl, this intelligent lovely girl, was slowly losing her power to question his orders, was as exhilarating to him as strong drink.

"I'm afraid I can't," Carol said. She rose from the chair, and blinked her eyes. "That light is really quite unpleasant, you know."

Kirkland caught her shoulders in his hands and pushed her back in the chair. "You mustn't leave now. You don't understand how important this is. You can't leave, you can't!"

"Please, Mr. Kirkland," Carol said sharply. She pushed his hands away and got quickly to her feet. "You're behaving very rudely. I offered to help you for a few minutes, but it's impossible for me to stay half an hour."

Slipping around him, she walked quickly to the door. Kirkland stood rooted to the spot for an instant, working his hands desperately; and then he leaped after her and clapped his big meaty hand across her mouth. "Shut the door!" he snapped at Rilke.

"You fool!" the doctor cried. "You'll have us in trouble."

"Shut the door!"

The girl struggled furiously against Kirkland. Her notebook fell to the floor as she clawed his hands with her sharp nails. He felt the pain but it meant nothing to him; he was gripped by an ambition that defied pain, as it defied logic and sense.

Pulling the girl toward the bed, he gasped to Rilke: "Get neckties from my closet. Move, you fool!"

He forced Carol onto the bed and put his knee into the small of her back. When Rilke handed him a necktie he slipped it twice about her head and forced it under his hand and into her mouth. He pulled the ends powerfully and her jaws were forced apart; and then he tied two knots in the tie and the girl was effectively and cruelly gagged. Another tie secured her elbows, and Rilke, who had suddenly come to life, threw himself across her legs and bound a tie about her ankles.

Together the two men hoisted the girl back into the chair. Kirkland stood behind her and held her head rigidly in place with his hands; and Rilke adjusted the tube until the light was playing across her forehead.

In a tense silence, broken only by the girl's painful breathing, the minutes went slowly by....

IN FIFTEEN minutes Carol lost consciousness; in thirty Rilke snapped off the machine.

"Now we will know," he said in a hushed voice. "If it doesn't work we're in a pretty mess."

They untied the girl's arms and legs, and unwound the gag from her mouth. Kirkland stood in front of her, his heart pounding with agonizing speed.

"Wake up!" he said. "Open your eyes, Carol."

The girl's lids fluttered open. Her eyes were blank, unseeing.

"Can you hear me?"

"Yes."

"Do you know who I am?"

"You are Mr. Kirkland."

"Carol, stand up and smooth your dress and hair."

Kirkland held his breath as the girl got to her feet and ran her hands down her skirt, and then patted her hair into a semblance of order.

"Kneel down, Carol," Kirkland said, in a voice that was suddenly throbbing with power.

The girl obeyed instantly; and Kirkland drew a long breath and looked triumphantly at Rilke. "She does as she is ordered. She obeys me," he cried.

For five minutes Kirkland experimented with the girl's unhesitating reactions. He made her stand up, sit down, flex her arms and legs; he gave her dictation and made her read it back to him, he ordered her to fetch him various articles from about the room.

Kirkland was in a frenzy of excitement. This was what he had needed! Mindless, automatic obedience. Half an hour ago this girl, lovely, intelligent, efficient, could have defied him, scorned him, ignored him; but now she was his slave. Kirkland wasn't an unkind man; he wouldn't take advantage of the girl's helplessness to

hurt her or humiliate her in any way. All he wanted from other human beings was complete obedience; and that was little enough since he knew best how to make them happy.

"What are we going to do with her?" Rilke said.

Kirkland frowned. He hadn't thought of that; and it occurred to him that the situation *was* a bit awkward. He wasn't ready to put his plans into effect yet, and the machine wasn't perfected; so he couldn't risk anyone's learning what had happened here in this room.

Turning to the girl he put a fatherly hand on her shoulder. "You must leave here now," he said. Kirkland's eyes were suddenly moist. He had to sacrifice this lovely girl so that millions might be happy. It wasn't an easy thing to do; but Kirkland knew that the individual was nothing, the group everything. That knowledge gave him strength. "Go outside and walk to the windows at the end of the corridor, Carol. The windows are open now—"

"No!" Rilke gasped.

"Shut up!" Kirkland said harshly. "Carol, go to the windows and leap out. Do you understand?"

"Yes, Mr. Kirkland."

"That's a good girl. Hurry now."

The girl left the room, closing the door behind her; and then Rilke saw her notebook lying on the table. "We can't have that found here," he cried. "The police will think it's funny that she doesn't have it with her."

"Stop worrying," Kirkland said, but he was frowning. He stepped quickly to the door, opened it, and peered after the girl. She was walking briskly toward the open window. There wasn't time to call her back. Someone might hear or see him, and so, with a last admiring glance at her straight back and slim legs, he closed the door

and shrugged. "We will burn the notebook," he said.

Rilke pressed his forehead tightly with both hands and sank into a chair. "She was so pleasant, so—so alert."

"We mustn't be sentimental," said Kirkland. He lit a cigarette and sat down and stared at the machine.

He was still smoking that cigarette when they heard the faint wail of a siren floating up from the street.

CHAPTER II

"**H**OW MUCH money will you need?"

Kirkland asked the question of Rilke, who was sitting across from him at a restaurant table the following morning. The little doctor was studying the front page of a newspaper.

"I hardly know," he said. "You haven't looked at this yet. Are you afraid to?"

Kirkland took the paper from the doctor's hands. "I haven't looked at it, because I am not interested. However, if it will make you happier, I'll read the details."

He sipped his coffee and studied Carol Masterson's smiling portrait. The story read: "A twenty-four year old girl leaped to her death yesterday afternoon from the twelfth floor of the Ridgely Hotel. The victim, Carol Masterson, of 2643 High Place, operated a secretarial service in the hotel with her sister Denise. Denise, questioned by police last night, said she knew of no reason for her sister's action. She was in good health and cheerful and happy, her sister added."

There was more to it, but Kirkland put the paper aside. "It's extremely unfortunate, of course," he said, attacking his eggs, "but it *was* inevitable. Now let us come back to the important issue: Your machine must be

perfected to a point where it operates *instantly*. One flash and the will is destroyed! We won't always have time to put people under its effects for half an hour. Can you do that?"

"Yes, I believe so," Dr. Rilke said reluctantly. "It's a question of intensifying the ray for maximum effectives, but not to the point where it will destroy the mind itself. It's a neat problem, but we can solve it."

"Of course," Kirkland said. "Now the second point: the machine must be reduced in bulk. Ideally it should be no larger than a fountain pen. Can that be done?"

"Perhaps," Rilke said doubtfully. "Anything is possible. But I will need a laboratory, assistants, equipment."

"Very well. How much money will that take?"

Rilke said. "Fifty thousand, sixty thousand."

"Don't worry, I will get the money. Now there's one other thing." Kirkland put his elbows on the table and studied Dr. Rilke with his pale bulging eyes. "How did you get into America?"

Rilke shrugged. "There are ways. After the war, I got false papers, was cleared by a de-nazification court, and, after a bit, got to America."

"Excellent. That is precisely what I thought. Now, Doctor, listen carefully. I have written an account of your activities, and your identity, and put it away in a safe place. Should anything happen to me, that information will instantly be forwarded to the Department of Justice in Washington. Do you understand?"

"You don't trust me?" Rilke cried.

"Of course not. I'd be a fool to trust you. But I think I can trust you now. If you had any idea about double-crossing me, or perhaps using your machine on me, you'd better get them out of your head."

Dr. Rilke's face was pale, and he

worried his lower lip with his sharp yellow teeth. "You have done me an injustice," he said, weakly. "Supposing you are killed by an automobile, or something else which I am not responsible for?"

"That will be very unfortunate for you," Kirkland said. "Now you must excuse me. I'm going to get your money. I will expect to see you at my hotel this evening. Good morning, Doctor."

Kirkland hadn't the faintest idea of how he was going to raise fifty or sixty thousand dollars; but he felt sublimely certain that he would. He walked through the streets, cudgeling his brain for a solution to his problem. Gambling was out, and so was borrowing, and so was stealing. Kirkland wasn't adverse to stealing, of course, but he knew nothing of that art, and so, rather wisely, he resolved to let it alone.

KIRKLAND walked very rapidly most of that day, going up one street and down another, ignoring shop windows and other pedestrians. He always walked rapidly when he was on the street, for he felt it made him seem a person of importance. However, as the dinner hour came and went, Kirkland was forced to stop and rest a while, no nearer a solution than when he had left the doctor so confidently that morning. He had stopped before a small bar and, fingering the few coins in his pocket, he decided to have a beer and a sandwich. That was about all he had money for. His hotel bill was a week overdue, and he knew he would be getting notice from the manager in a day or so. Kirkland sat down tiredly on a bar stool, concerned now with the immediate petty problems of his life. The fifty thousand dollars was forgotten in the consideration of his present difficulty. This was typical of him. He

was always up or down, never in the middle. Either fortunes were waiting him, or complete destitution.

There was a man on his left sipping a beer, a thin, tired-looking man with pale skin, scanty hair, and a sloping chin. Kirkland's eye was caught by the way the man was counting the change from a ten-dollar bill. The man didn't look at the bills, but was staring rather moodily at the bottle display while his two hands flicked through the money with automatic speed. Satisfied apparently that the count was right, the thin facile hands stacked the money in a neat pile, and then moved to pick up cigarettes and matches.

"I beg your pardon," Kirkland said, turning to the man and smiling. "But do you work in a bank?"

The man's mouth parted slightly and he grinned. "Yes, I do. How did you ever guess that?"

"Well, I'm not sure that I can tell you," Kirkland said. "There was something about you, an air of responsibility, I imagine, that made me think that you handled large sums of money, or possibly stocks and bonds. And I hit the nail, didn't I?"

"You certainly did. I'm with the Fourth National." The man sipped his drink, a pleased smile lingering on his lips. "That air of responsibility you mentioned—well, I guess that comes from handling more money in a day than most people see in a whole lifetime. It's quite a job, you know. That's why I relax occasionally with a little drink," he said apologetically.

"I couldn't stand it," Kirkland said. "The pressure would get me down."

"Most people don't realize how tough it is," the man said, moving his stool closer to Kirkland's. He began a recital of the problems he faced every day from people who wanted checks cashed without proper identification, and of those who wanted advice on banking problems; and as

he rambled on, almost giddy at having found a sympathetic ear, Kirkland's mind was wheeling with possibilities. He saw now how he could get the money for Doctor Rilke, if only he could get this garrulous ass back to his hotel room. Once there they could clap him under the will-destroyer, and after that the rest would be almost too simple. . . .

"Have you had dinner?" he asked the man, who by now had told that his name was Edison.

"Matter of fact, no."

"I know an excellent place, not far from here. Would you like to join me? I'm very interested in what you were saying about checking accounts, but frankly I'd like to hear the rest of it over a good steak."

"Fine."

Outside, Kirkland slapped his breast pocket, and then shook his head with a fine show of irritation. "Counfound it, I left my wallet at the hotel. Supposing we pick it up? This is my treat, understand?"

Edison's eyes had flickered suspiciously for an instant; but now, seeing that Kirkland wasn't going to try to borrow money, he agreed to accompany Kirkland to his hotel.

"It's the Ridgely, and it's not far," Kirkland said.

"The Ridgely? That's where that girl jumped out of the window yesterday. What made her do a thing like that, do you suppose? You know my idea?" Edison said quickly before Kirkland could reply. "I think she was mixed up with a man."

Kirkland nodded thoughtfully. "You're probably right," he said.

ONCE IN Kirkland's hotel room, Edison immediately put his neck in the noose. He examined Rilke's machine from all angles, asked a lot of questions about it, and when Kirkland

told him it was a device to increase the growth of hair, Edison ran a hand through his thinning locks and asked eagerly for a demonstration.

"Very well," Kirkland said casually. "Sit here, please. About fifteen minutes should do it."

Within fifteen minutes Edison was unconscious, his receding chin hanging limply, his eyes closed. Kirkland left him under the strong blue beam for another twenty minutes, then roused him. Edison opened blank, glazed eyes.

"Get up!" Kirkland said.

Edison rose automatically.

"Go home now. Tomorrow morning I will present myself at your window, promptly at nine o'clock. Have fifty thousand dollars in small bills ready for me, and shove it under the grill without any conversation. Do you understand?"

"Yes, I understand."

"Don't do anything that will look suspicious. Count out the money carefully, and smile and say hello to everyone there as you do normally. Got that?"

"Yes, I have that."

"Fine. Now on your way."

When Edison had gone, Kirkland stretched out on the bed and lit a cigarette. Once again his dreams were vast and ambitious. He saw himself with fifty thousand, with a hundred thousand, with millions; and he saw people everywhere bowing to him, waiting for his orders.

There was a knock at the door. Kirkland got up and let Dr. Rilke in. "Well?" the doctor said, studying him with skeptical eyes.

"I will have the money for you at nine-thirty in the morning," Kirkland said.

"Where—how are you getting it?"

"You sound surprised?" Kirkland said in a cool voice. "I am a resourceful man, Doctor. Now you had better

make your plans for a laboratory and assistants." Kirkland turned slowly to the window and looked over the gleaming city. "I am ready to embark on operations that will make the ambitions of Genghis Khan seem non-existent by comparison."

"We must go slowly," Rilke said.

"Slowly? Nonsense! The world moves swiftly today; and we will move twice as swift."

Rilke rubbed his jaw anxiously.

CHAPTER III

IT WAS TWO minutes past nine when Kirkland presented himself at Edison's cage in the lobby of the Fourth National Bank. There weren't many people in the bank, just a few spruce-looking guards, and two or three men writing checks at the desks provided for the public.

Kirkland stared through the bars at Edison's weak face.

"Give me the money!" he said.

But Edison behaved far differently from what Kirkland expected. He pointed excitedly at Kirkland, and shouted, "That's the man! He's the one!"

Kirkland felt strong hands on his arms. He turned, startled and confused, and saw that he was in the grip of the bank guards. Two of the men who had been writing checks converged on him with guns in their hands.

"Frisk him," one of these men snapped.

The bank guards patted Kirkland's pockets, then one of them said: "He's clean, all right."

"W-what's the meaning of this?" Kirkland blustered weakly.

The teller, Edison, was staring at him with an expression of mingled fear and anger. "You know what it's all about," he said, pointing a trembling finger at Kirkland. "You were

going to make me steal fifty thousand dollars for you."

"This is preposterous," Kirkland said, in an even weaker voice.

"Well, let's take him down to the President's office," one of the detectives said.

Without any more conversation, Kirkland was hustled through the quiet marble lobby and up a flight of stairs to an office where a white-haired man was sitting behind a huge, perfectly clear desk.

"Here he is, Mr. van Teal," one of the detectives said.

"Ah, excellent work," van Teal said, rising and coming around to the front of the desk. He was sparely built, with lean inquisitive features and alert eyes. Taking glasses from his pocket, he put them on his bony nose and studied Kirkland with interest.

"Now, Edison, you're certain this is the man?" he said, at last.

"Positive!" Edison said, glaring triumphantly at Kirkland.

"Well, sir, what do you have to say for yourself?" van Teal said to Kirkland.

Kirkland's palms were sweating and his heart was lunging about inside him like a frightened bulldog; but he made an effort to regain his poise. His appearance was in his favor, he knew. His large, confident-looking body, and big strong face were not the traditional equipment of the flim-flam artist, he thought. Kirkland met van Teal's eyes directly, challengingly.

"I believe that the explanation for all this nonsense should more logically come from you," he said. "I must confess that your banking procedure is surprising, to say the least." He nodded to Edison. "I approached this young man to inquire about opening an account here, and he began shouting hysterically at me."

"You wanted me to steal fifty

thousand dollars for you," Edison cried.

KIRKLAND ignored the teller, and smiled sardonically at van Teal. "Is anyone going to explain this situation?"

Mr. van Teal said, "Edison, repeat what you've already told us."

"You're darn right I will," Edison said, facing Kirkland belligerently. "This fellow started talking to me last night while I was—er—," Edison paused, wet his lips. "While I was having a glass of beer," he went on, with a surreptitious peek at van Teal to see how he took that information. "He asked me to have dinner with him, but when it came to paying the check he didn't have any money. So we went to his hotel room. And that's where he put me under this machine."

"Machine?" Kirkland raised his eyebrows expressively.

"That hair-growing machine," Edison shouted. "You know about it, all right."

"Very well, let's assume I know all about this—er—hair-growing machine. Please go on."

"Well, it wasn't a hair-growing machine at all," Edison said.

"It wasn't?" Kirkland met van Teal's eye, gave him a man-of-the-world-smile. "Pity, don't you think? Should be money in a real hair-growing machine."

"Quite!" van Teal said, with a slightly suspicious glance at Edison.

"No, it was a machine that made me do anything he wanted me to do," Edison said, pointing a shaky finger at Kirkland. "He told me to have fifty thousand dollars ready for him this morning and I said I would. I was helpless to do anything else. It felt like my mind was caught in a vise. But about two o'clock this morning something seemed to snap in my

head, and I felt all right again. I felt just the way I always did, like the way I am now."

"That's a pity, of course," Kirkland said. Hope was burgeoning in his soul once more. Edison's story was too preposterous to be accepted, he realized.

"We caught you, though," Edison said. "Didn't we, Mr. van Teal?"

"Hmmm," said Mr. van Teal.

The detectives and bank guards were regarding Edison with dubious expressions.

Kirkland smiled. "I suggest that this fantastic series of accusations might stem from the effects of that—er—glass of beer. I further suggest that it wasn't a glass of beer at all that precipitated these delirious convictions, but rather straight whisky in considerable amounts. I assure you I do not have a machine that either grows hair or destroys the human will."

"Yes, of course," van Teal said, hastily. "I think there has been a mistake, Mr.—?"

"Kirkland."

"Mr. Kirkland. You understand our position, I trust. We have to investigate all such possibilities."

"But he's going to steal money from us!" Edison cried. "He *has* a machine that makes you do whatever he wants. It's devil-work."

"Edison, you haven't had your vacation yet, I believe," van Teal said. "I'm going to ask you to take it right away. I think you have become over-tired."

"You don't believe me?" Edison cried. "I'll take you to his hotel, I'll show the machine, I'll—"

"Now, that will be quite enough," van Teal said firmly.

One of the bank guards moved over and put a gentle hand on Edison's arm. "Come along now, like a good chap," he said.

When Edison had gone, shaking his

head stubbornly, van Teal turned to Kirkland, and said: "I can only offer you my profound apologies for this regrettable situation, Mr. Kirkland."

Kirkland smiled, already feeling the buoying sense of his own superiority. "Not at all," he said, with a careless wave of his hand...

ENTERING his hotel lobby twenty minutes later, Kirkland found Dr. Rilke waiting for him. The little doctor hurried to him, smiling eagerly.

"Is everything all right?" he said.

"No, you incompetent ass, everything is not all right," Kirkland said coldly. "Come up to my room, I want to talk to you."

"But what went wrong? You said—"

"Please be good enough to keep quiet until we get to my room."

In his room, Kirkland closed the door and caught Rilke's lapels in his big strong hands. "He came out of it," he snapped. "Last night that teller was helpless. This morning he had police waiting for me when I got to his window, and he was clear as a bell."

"I don't know what you're talking about," Rilke whimpered, attempting to pull away from Kirkland.

"Very well, I'll tell you, you little fraud. Last night I met a bank teller, and by exercising considerable ingenuity, I got him here and under the machine. When he was ready to do as I told him, I sent him home with instructions to have fifty thousand dollars ready for me this morning. Instead he had the police. I might be in jail this minute if it were not for my superior mind."

"But of course," Dr. Rilke said nervously. "However, the effects of my instrument last only for three or four hours. You should have told me your plans and I could have shown you

why they wouldn't work."

Kirkland shoved Rilke away from him and walked to the window and stared down bitterly into the street. "Three or four hours," he muttered. "What good is that?"

Rilke came to his side, plucked timidly at his sleeve. "I told you the machine isn't perfected," he said. "I need to work on it, to strengthen its effects, and to make it work instantly. We need money, lots of it, as I told you before."

"Stop telling me things," Kirkland cried imperiously. He was violently irritated with Rilke. Typically, he saw the little doctor as the sole reason for this morning's mishap. "Please stop making ridiculous suggestions that serve no purpose but to get me into trouble," he said. "I am going to take over completely now, and get a sensible program under way. You and your bank tellers!" he muttered, shaking his head in despair at Rilke's stupidity. "How much money do you have?" he demanded.

"Me? I have none."

"None at all?"

"Well, I have a little, but not enough for our needs."

"Let me be the judge of that," Kirkland said. "How much do you have?"

"Two hundred and thirty dollars."

"That is sufficient," Kirkland said smiling. "Get it for me immediately. I am through using guile. From now on we drive headlong at our goal. Anything in our way shall be destroyed. Hurry!"

Rilke scampered from the room and returned with the money in less than half an hour.

"Excellent," Kirkland said, putting the money in his wallet. "Now I have plans to make. Excuse me, please." And with that he strode out of the room.

KIRKLAND'S first stop was at the rental agent's office in a mid-town building. He handed his card to the agent, a mousy little man in a pin-striped suit, and said: "I require a furnished three-room office suite immediately."

The agent, impressed by Kirkland's manner, showed him about the building, and Kirkland finally selected a suite on the fifteenth floor. He paid a month's rent in advance.

"May I ask what line you're in?" the agent said, writing him out a receipt.

Kirkland smiled with sardonic amusement and looked thoughtfully into his future. "That's a rather difficult question," he said, chuckling. "My interests are somewhat varied, you see. However, for your files, you might list me as a speculator. Good day."

Next Kirkland phoned the morning newspaper and inserted an ad in its Help Wanted columns. The ad read: *Excellent opportunity for strong adventurous young men.*

When that was done, Kirkland took a cab to the best restaurant in the city and indulged his voracious appetite to the utmost. Paying the check with Rilke's money, he left a generous tip, and walked into the street. Tomorrow morning things would be humming, he thought smugly.

The next morning the outer office of Kirkland's suite was crowded with a varied assortment of men—*young, old, healthy, sick, weak, strong.* They had just one thing in common; a desire to get on someone's payroll. Kirkland sat behind his desk, smoking, studying them with cool, unimpressed eyes. He enjoyed watching the anxiety in their faces, and the way they shifted nervously when he looked at them directly. It gave him a sense of power, reaffirmed his faith in his own superiority.

"I need six men for a difficult but interesting job," he announced at last. "The salary will be one hundred dollars per week. Now line up so that I can look you over."

The men arranged themselves into a ragged file, and Kirkland strode up and down before them, mentally ticking off those who seemed strong and alert.

"Very well," he said, and walked back down the line nodding to the men he had selected. "You six are to report back here tomorrow morning at nine o'clock. The rest are excused. Good day, gentlemen."

When the room was clear, Kirkland walked into the inner office where Dr. Rilke was sitting at a desk on which his mind-destroying machine rested. Rilke looked pensive and worried.

"Well?" he said, glancing at Kirkland with weak, wounded eyes. "Have you got the men?"

"Of course." Kirkland strode up and down the office, rubbing his hands together. "I have six fine specimens. They will be here at nine o'clock in the morning. See to it that you are here at that time. I will send them in and you will put them under the effects of the machine. Do you understand?"

"What are you going to do with them?"

"I don't know," Kirkland said blandly. "I have to decide that today. Never fear, I'll have an interesting job for them."

"This is all very risky," Rilke said.

"Quite so," Kirkland said, and strode from the office.

HE TOOK a cab to the Fourth National bank and took up a position before a drug store opposite the bank. At ten o'clock his eyes brightened with interest as an armored car pulled up before the bank. An armed guard climbed out of the front seat,

and another hopped down from the rear of the truck. They went into the bank together and returned about ten minutes later carrying sacks of currency. The money was put in the rear of the truck and one guard climbed in after it, while the second guard covered him with a drawn gun.

Kirkland watched closely as this guard walked around to the front of the truck and got in beside the driver. Then the truck rolled off down the street. Kirkland frowned and was on the point of turning away.

"Interesting sight, ain't it?"

Kirkland turned sharply. There was a man standing beside him, looking after the armored truck with a musing smile on his lips.

"I beg your pardon?" Kirkland said.

"I said it was an interesting sight," the man said, smiling into Kirkland's eyes. "A great big truck like that, loaded with money."

"It's no more interesting than a great big truck loaded with oil barrels, or furniture, or washing machines," Kirkland said.

"Now that's where you're wrong," the man said, smiling widely. He was a tall young man, with lean features and straight black hair. His clothes were in extremely dubious taste, Kirkland noticed. Padded shoulders, brightly figured tie, pointed suede shoes. Hardly a gentleman, Kirkland thought.

"How am I wrong?" he asked.

"Well, there's something about a truckful of money that makes even the most honest citizen start speculating about it," the young man said. "Now take oil barrels, or washing machines. Does anybody see a truck load of that stuff and start thinking how they could get at it? The answer is no. But with a money truck it's different. Practically everybody at one time or other has figured out a

way to knock off an armored truck." The young man smiled disarmingly and took out a silver cigarette case. "All in good clean fun, you understand? They just think about it, and that's that."

"Were you thinking about—ah—knocking off that armored truck?"

The young man took a cigarette from his case and lit it with a silver lighter. The light from the flame brought a mocking glint to his bright steady eyes. "That's a leading question, you know," he said, inhaling deeply. "Maybe I was. Funny thing, I looked at your face when they was bringing that money out, and I said to myself, 'Now, I'll bet that fellow there, innocent as he looks and probably is—I'll bet he's wondering how he could get hold of that money.' That's what I said to myself, yes sir."

"Do you often hold these dialogues with yourself?" Kirkland inquired coldly. Something about this young man made him uneasy. He was too knowing, too sure of himself, too amused.

"Not often," the young man said. "By the way, the name is Clark."

"Nothing could interest me less than your name," Kirkland said.

"Now don't be getting huffy," Clark said, in an injured voice. "We're just talking, you know."

Kirkland knew he should be on his way. He had learned nothing of value from watching the armored truck stop at the bank; and he was seriously doubtful now that he would ever find any gainful operation for his six potential human robots. Yet, while he knew he should leave, there was something about this young man that caught his interest.

"Were you by any chance speculating on how to get at the money in the armored truck?" he said, in what he hoped was a bantering voice; but

his ears caught cupidity in his tone.

"Just as a sort of mental exercise, you mean?" Clark said, grinning.

"Yes, of course."

Clark smiled and blew smoke into the air. "Now that's very interesting because I *was* thinking about that truckful of money. Here's how I'd go at it...."

KIRKLAND listened with keen interest as Clark discussed the road-network leading out of the city, the time-table of the armored car, the guns the guards carried, and a host of things that would have never occurred to him to wonder about. He realized then that Clark had plotted every last detail in robbing the armored truck that took money away from the Fourth National bank. His heart was pounding a bit harder than usual, as Clark went into the details of cutting holes into the sides of the truck so the money could be removed.

"All we need," Clark concluded, "is five or six men who'd do just what they're told. Simple, ain't it?" he said, and rocked back and forth on his heels, a mocking little smile playing over his lips.

"Let's have a cup of coffee," Kirkland said abruptly.

When they were seated at the end of a counter, Kirkland turned and looked directly at Clark. "There is no need to carry on this masquerade any longer," he said. "I am going to take that armored car tomorrow. I have the men. How much do you want for your plan?"

Clark shrugged. "I'm not greedy. Ten per cent? That strike you as all right?"

"Ten per cent will be all right. Understand one thing, however. I run things completely. You do as you're told, the same as my other men."

Clark smiled. "I got no illusions. You're the boss."

"You've been in this sort of business before?"

"Yeah, in Chicago, and on the Coast. I know my way around, you'll see. Now about this deal. Are you sure these men of yours will obey orders?"

"To the letter."

"Well, that's good. This thing depends on split-second timing, and a lot of guts."

"Don't worry." Kirkland gave him the address of his office. "Meet me there at ten o'clock tomorrow morning."

"Look, I'm going to need two cars and an electric torch."

"Very well, get them."

"How about some money?"

Kirkland waved a hand casually. "I'll take care of you after the pay-off."

Clark looked dubious. "I don't like investing my own money. It's bad luck."

"Your association with me will be the luckiest thing that ever happened to you," Kirkland said. "I'll see you in the morning."

"You sound like you're heading for the big time," Clark said, scratching his head. "We'll see."

"Indeed we will."

CHAPTER IV

THE NEXT morning at nine sharp Kirkland faced the six stalwart young men he had selected the day before.

"First you will all be given—ah—an eye test," he said. "The work I expect you to do requires better-than-average vision, so we'll find out about that first. Follow me please."

He led them into the inner office, where Rilke was making an adjustment on his mind-destroying machine. The window shades were drawn, the room was in darkness. In the gloom

Kirkland saw six chairs in a semi-circle in front of the machine.

"Please find seats," he told the men. Rilke had put a filter on the lens of the machine in order to take care of all the men at once. He snapped the switch and a beam of light, six inches wide and fanning out in a semi-circle, bathed the faces of the men.

"This will take a few minutes," Kirkland said. "Relax and reflect on your coming good fortune."

Within half an hour the six men were sprawled loosely in their chairs, unconscious. Kirkland snapped on the overhead light and inspected them with a triumphant smile. "Excellent, doctor. Now be good enough to pack up your machine and clear out. I'm expecting another party, and I don't want him to see you."

"What are you going to do?" Rilke said nervously.

"I'm going to get fifty or sixty thousand dollars so that you can perfect your machine. Isn't that what you wanted?"

"Yes, but we're taking an awful chance."

Kirkland shrugged. "Let me worry about that."

When the doctor had gone, Kirkland ordered the six men to get to their feet. They did so with automatic obedience; and stood immobile, eyes glazed, awaiting further commands. Kirkland smiled at them and went into the outer office.

Clark arrived a few minutes later carrying a small overnight bag. He was dressed even more hideously than he had been before, Kirkland saw with distaste. Today the young man wore a camel's hair sports coat with heavily padded shoulders, powder blue slacks, suede moccasins, and an oyster-white sports shirt. His thick dark hair was glistening with brilliantine, and he was reeking with a cheap brand of after-shave lotion.

"You're on time," Kirkland said, rising.

"Business comes first," Clark said, and despite his colorful clothes, there was no mistaking the seriousness of his manner.

"Come with me," Kirkland said, and led the way into the inner office. Clark stared at the six husky young men who were staring sightlessly at the opposite wall. He scratched his head and glanced at Kirkland with a puzzled frown.

"What's wrong with these characters?"

"There is nothing wrong with them," Kirkland said.

Clark walked around the six men, peered into their eyes, slapped their cheeks. "They're like zombies," he said. His face was pale. "Look, you can count me out of this deal. I like things nice and normal, see. I want no part of these spooks."

"They will do our bidding down to the last letter," Kirkland said. "Watch." He stepped up to one of the men, and said, "Strike the man on your right in the face!"

Without hesitation, the young man turned and knocked his neighbor to the floor with one terrific punch.

"Get up," Kirkland told the man on the floor. Then he smiled at Clark. "You see?"

"What have you done to them?" Clark said. He was breathing hard, and there was a film of perspiration on his forehead. "They ain't human."

"Precisely," Kirkland said, still smiling. "They are not arbitrary, whimsical, unheeding, compulsive, and self-willed—the things we mean by the term 'human'. Thank the Lord they aren't human. Instead they're obedient, submissive, *un-willed*."

"And you expect them to take part in this caper?"

"Most assuredly. You give them

their orders, and they'll carry them out."

Clark scratched his head again. "I don't like it," he said. "I don't know why, but I just don't like it. They got guns?"

Kirkland frowned and bit his lips. He'd forgotten guns. "No, they haven't."

"Well, don't worry about it," Clark said. "I got an arsenal here. Look, we'll go through with this thing, all right, but I'm going to be pick-up man. I don't want to be with these walking sticks if trouble breaks out. I'll tell 'em what they're supposed to do now...."

When Clark had finished his detailed instructions to each man, and had distributed guns to them, Kirkland added one last order: "Don't be taken prisoner. Use your guns on the police if you're caught!"

"You're signing their death warrant!" Clark said, whitening.

"Precisely. Now be on your way. Call me here when you can."

"Okay." Clark nodded to the six motionless men. "Okay, you guys, get started."

The six men put their guns away in their pockets and walked out of the office, suddenly grim, purposeful, deadly.

KIRKLAND paced the floor of his office for the next two hours. He smoked endless cigarettes and tormented himself with visions of total catastrophe. He saw the scheme smashed, Clark caught, the whole world falling about his ears. Then, with mercurial speed, his thoughts would change, and he'd find himself swept up in dreams of unprecedented power. He saw the robbery successful, he saw a whole series of exploits working flawlessly, and he saw himself being bowed to and venerated by everyone in the city, the country, the world!

In the midst of these splintered, chaotic speculations, the ringing of the phone was enough to cause him to jump like a frightened rabbit. He stared at the instrument, listening to its insistent ringing; his heart pounded furiously. Then slowly, with a shaking hand, he raised the receiver to his ear.

"Yes?" His voice was a scraping whisper, his throat a column of parched nerves.

"It's me, Clark. Everything's okay."

Kirkland let out a deep breath. Immediately his strength returned. "Of course," he said. "Do you have the money?"

"Yes."

"Very well. Bring it here immediately."

"Look, there's one thing. All those stooges of yours got themselves shot."

"That's a pity. However, there must be sacrifices before the state of things can be improved. I shall expect you as soon as possible."

Kirkland replaced the phone and seated himself calmly at his desk. His mind was tranquil as he made plans for the time when Rilke would have the machine perfected....

IT WAS more money than he'd ever seen in his life. Seventy-eight thousand dollars stacked in neat rows on his desk. Clark looked down at it, rubbing his hands.

"Ten per cent, right?" Kirkland smiled, counting out seventy-eight hundred dollars. "And here's an extra thousand for renting the cars and for the drill, or whatever it was you had to have."

"You should have seen it!" Clark said softly. "Those characters of yours acted like they was wearing suits of mail. Then when we had to plug up that road to keep the cops from following—well, one of them guys rammed his car into a police car at

about seventy miles an hour. Boy, it was terrible. Then—"

"I can imagine it was quite—ah—lively," Kirkland. "However, details bore me. Would you like to continue this association, Clark?"

"It's okay by me. You got a smart way about you. Yes, I think it would be fine."

"Very well. I want you to rent me a suite in the best hotel in town. I want a terrace with a southern exposure, of course."

"Is that all?"

"For the time being, yes. I won't be planning anything else for several weeks."

"Okay, I'll take care of it."

"And one other thing. Get yourself some decent clothes. You look like a circus barker at the moment, and I find that highly offensive."

"Anything you say," Clark said. He looked down at his suit with a puzzled frown, and then shook his head. "They're neat threads, but you're the boss."

"Keep that in mind."

When Clark had gone, Kirkland happily stuffed the money into his pockets, then called Rilke at his hotel. The doctor answered immediately, in a voice tight with concern.

"Get to work on that lab immediately," Kirkland said. "We are in funds."

"Did everything work all right?"

"Of course."

"What about those men? Those six young men?"

Kirkland looked out the window at the broad dramatic sweep of the city and sighed. He felt a touch of pity for those six young men. "They will probably be the first saints in the new mythology," he told Rilke, and hung up the phone.

KIRKLAND spent the next week acclimating himself to the luxury

of his new hotel suite, and with fittings at an exclusive and expensive tailor. He dined at the best places in town, and his mind was humming with plans for the future.

Nothing bothered or worried him now. He was absolutely certain that his path was blessed by Destiny. Even the cautious police inspector who came to see him one day caused him little concern. The police were curious about the fact that the six young men who had died in the hold-up of the armored car, had shortly before answered an ad that had been inserted in the paper by Kirkland.

Kirkland answered the inspector's questions calmly, confidently. Yes, he had interviewed the men. No, he hadn't hired any of them. No, he had no ideas about their participation in the sensational armored car robbery. Yes, it was quite a coincidence. And so on.

When the Inspector had gone, Clark entered the large, well-decorated living room, cautiously. He rubbed his damp forehead and looked at Kirkland with frank admiration.

"Brother, you're an icicle," he said. "That guy is supposed to be tough and smart, but you held your own with him."

Kirkland frowned, annoyed at Clark's implication that he and the Inspector were equally matched. "It is hardly surprising that I was able to fend off his infantile queries," he said.

That afternoon Kirkland drove out to the laboratory that Rilke had rented. There progress was being made. But not enough to satisfy Kirkland. Rilke had a model of the will-destroyer about the size of a flash-light, and which would work in the space of ten minutes.

"That's not good enough," Kirkland said. "It must be no larger than a fountain pen, and the beam must be effective on contact."

"It is so hard to do with such speed," Rilke said.

"Nonsense!" Kirkland stared about the small lab, ignoring the two assistants who were making tests with various kinds of metal. "I'll expect the finished product in not less than two weeks. Good day."

THAT NIGHT Kirkland was strangely restless. After dinner he prowled about his hotel suite, walking from one room to another, rubbing his hands together nervously. Entering the bathroom, he stared at himself in the mirror, studying his strong square face, his smooth hair and pale gleaming eyes. He washed his hands and face and went downstairs to the lobby of the hotel. For half an hour he sat near the entrance watching people hurrying in and out. There were important-seeming businessmen, happy couples, and single men and women going eagerly to appointments. Kirkland wondered what all these people would do that night, and whom they would meet, and then he sighed because he was lonely. He thought of looking for Clark, but changed his mind. That brash and vulgar young man wouldn't satisfy his present needs.

Finally he went into the softly-lighted barroom and ordered a scotch-and-soda from the neat impersonal bartender. Sipping his drink, which he didn't really want, he noticed a girl sitting at a stool on his left. She was a stunning creature, smartly dressed in a sheath-like black dress, and her legs were crossed so that he had a beautiful view of their long slender loveliness. Her hair was dark as midnight, her skin fair and finely textured. She was smoking a cigarette and a Martini was in front of her on the bar.

Kirkland glanced covertly at her, and then looked away as she met his

eyes. He felt his cheeks burning. Kirkland was afraid of women. He had always been, ever since he was a child. They could laugh at you, laugh at your weakness and need of them, he had learned. And he couldn't stand to be laughed at, so he had cultivated an imperious manner with them that kept them at a safe distance.

But he couldn't keep his eyes off this girl. His head turned almost of its own volition, and his eyes flicked guiltily along her slim silken legs, noting that one smartly shod foot was swinging idly, provocatively. He glanced at her small, exquisite face, and he saw with horror that she was smiling at him; and he turned away quickly, trying in vain to still the swift pounding of his heart.

He wondered who she was, and why she was waiting here at this bar. Probably a young man would join her soon, and she would tell him with amusement of the big stranger who had been staring at her legs. The young man would glance down at him, smiling slightly at her story, but nonetheless irritated.

Kirkland grew excited imagining the scene. He would turn and meet the young man's gaze calmly, of course; he might even nod at him as if they'd met before, and then he'd pick up his change, say goodnight to the bartender and stroll out as if he were on his way to an important conference.

"Pardon me, but do you have a match?"

IT WAS the girl who had spoken. Kirkland turned jerkily, and automatically, his manner defensively austere. "I believe I do," he said coolly, and held a light for the cigarette between her lips.

"Thanks, so much," she said.

Kirkland nodded gravely and picked up his drink; but his hands were

trembling so that he put it down hastily.

"A cigarette without a match is pretty useless," the girl said.

"Quite."

"There's nothing to do then but bother a stranger."

Kirkland turned to her, eager to keep this conversation going, but still afraid that she would treat him lightly.

"You might have asked the bartender," he said; and realized instantly how rude that sounded.

"I didn't happen to want to talk to the bartender," the girl said.

"You wanted to talk to me?"

"Yes, you looked interesting, and I see no point in being a slave to the convention that says people shouldn't talk to each other until they've been properly introduced."

"I see," Kirkland said. He smiled at the girl, but watched her keenly to see if she were making a joke of him. But she seemed perfectly sincere.

They talked casually for a while, finding mutual likes and dislikes, and Kirkland bought her a drink and had another himself. He was warming up now under the glow of her friendliness, and it no longer seemed strange to him that she had wanted to talk to him. Naturally, he thought, she had seen that he was a man of superior intellect and powers, so naturally she had been drawn to speak to him.

Her name was Jane Reynolds, and she was from the west coast. She was here to study voice, and was all alone in town. When she said an hour later that she must go up to her room, Kirkland asked her eagerly if he might see her to her door.

She said of course, and there, standing in the doorway, and smiling at him, she promised to go to dinner with him the next night....

When he returned to his own room

he strode up and down the thick rug, smiling and happy, almost delirious in his excitement. This had never happened to him before; and he was as stimulated as a high-school sophomore on his first date.

The next ten days went by in a blur of ecstasy for Kirkland. He saw Jane Reynolds constantly, took her to concerts, to dinner, to all the best night clubs. Clark was beginning to clamor for action, and kept pointing out that money was running low, but Kirkland refused to do anything until Rilke had perfected the mind-destroying machine.

Then late one afternoon Rilke called, and Kirkland instantly caught a note of fright in his voice.

"What is it?" Kirkland said. "How is the work coming?"

"The work is completed, but there is danger."

"Danger? What are you babbling about?"

"I must see you right away."

Kirkland gnawed at his lip in exasperation. He had a cocktail date with Jane, and nothing could be more important than that. "Very well, come over at once," he said. "But I can't give you much time, understand?"

Rilke said goodbye in a trembling voice and rang off.

CHAPTER V

THE LITTLE doctor entered Kirkland's room within ten minutes and his manner was that of a rabbit pursued by a pack of dogs. He was white and shaken, and there was a nervous tic flickering under his left eye.

"What's wrong?" Kirkland demanded. "You look as if you seen a ghost."

"I have, I've seen two ghosts," Rilke said, catching Kirkland's arm with a thin, claw-like hand. "The

colonel of my section in Germany, Colonel Jodell, and his SS sergeant. They are here, they have come to me and have demanded my help."

Kirkland felt a swift surge of anger. "Did you tell them you are working for me?"

"No—I lied to them. They are monsters, believe me. They have a group here, a Fascist group, and they will kill me if I do not help them. I must flee. Please let me go."

Kirkland studied Rilke's fear-distorted features with a somewhat lofty compassion. He patted the little doctor's shoulder and led him to a chair. "Relax a moment, while I bring you a drink. You have nothing to worry about, so long as I am with you. Do you understand that?"

"I am afraid," Rilke said, through chattering teeth. "You do not know these men."

"And they do not know me," Kirkland said, pleased by the melodrama of his response. He poured a stiff drink and handed it to Rilke. "Now, get that down and we'll try to talk sensibly. I want you to tell me everything that has happened, but in a coherent, chronological manner. That's not asking too much, I hope."

Rilke seemed calmer after finishing the drink. He shuddered once and then began to talk: "Last night my phone rang. It was Colonel Jodell. I would know his voice if he spoke from the blackest pit of hell. He said he would see me this morning. When he arrived he had with him a man named Karl, his SS sergeant. Karl is a great brute. They told me they got out of Germany as I did, and have been working since to establish a Nazi party here in America. They need money, it seems—"

Kirkland held up a hand impatiently. "Let me ask you a few questions. Did you tell them of me?"

"Y-yes."

"Precisely what did you tell them?"

"I—I told them you were a friend, a wealthy friend. They wish to meet you."

"Oh? And when am I to have that pleasure?"

"Tonight." Rilke looked fearfully at Kirkland. "They are coming here within the hour."

"I see." Kirkland paced the floor, wondering if Rilke was telling the truth. "Do they know about your mind-destroyer?"

"They knew I was working along that line in Germany. However, they didn't ask me about it."

"Did you tell them I might be sympathetic to their philosophical convictions?"

"Yes, that is why they wish to meet you."

"Very well," Kirkland said. "Perhaps we can make use of these old friends of yours."

"No, no," Rilke cried. "They are monsters."

"You worked for this colonel in Germany, did you not?"

"I had to," Rilke said. "Believe me, I didn't want to."

Kirkland yawned. "I find such protestations rather silly," he said. "Now tell me this: how is your research coming?"

"It is complete. I almost forgot about it in my confusion." Rilke took a small package from his pocket and gave it to Kirkland. "Here are the first of the final models."

KIRKLAND smiled happily and unwrapped the package with fingers that were trembling slightly from eagerness. He removed two gleaming, pencil-slim tubes, and stared at them with a transfixed expression. "They are beautiful, beautiful," he said softly. He noticed that they had clips on their sides so that they could be carried in a vest pocket like fountain

pens; and at one end there was a push button, and at the other, a tiny bulb.

"I have not tested them on humans, but all the data indicates they will work perfectly," Rilke said.

"There are only these two in existence?"

"That is all. I can make more in a short time."

"Don't bother. This is all I want for the present. Discharge your technicians and close up the lab."

"But I am just beginning—"

"Never mind. Do as I say."

The phone buzzed; Kirkland lifted it, and a smooth cultivated voice said: "Mr. Kirkland, my name is William Jodell. We have a mutual friend, I believe, in Doctor Rilke."

"Why, yes, of course," Kirkland said, and winked over the phone at Rilke. "As a matter of fact our good friend is with me at the moment. Won't you join us?"

"It will be a pleasure. I am phoning from the lobby of your hotel, as it happens."

"Then come up, by all means."

Rilke rubbed his hands together nervously as Kirkland replaced the receiver. "I am afraid," he muttered. "This nightmare of Germany is beginning again."

"But under more intelligent leadership," Kirkland said in a musing voice.

There was a knock a few moments later, and Kirkland strode energetically across the floor and threw open the door. Jodell and a huge hulking man were standing in the corridor. "I took the liberty of bringing my friend, Karl Schmidt," Jodell said.

"You are both welcome," Kirkland said, and led them into the room and gave them chairs. "Shall we have a drink to celebrate this occasion?" he said.

"A charming idea," Jodell said. "Who knows, this may be an auspicious meeting?"

Kirkland made drinks, passed them around. Jodell was not the heel-clicking Prussian type, he observed. Rather, he was the intellectual sort, with composed thin features, thoughtful eyes, and a wryly humorous cast to his features. He was in his middle fifties, Kirkland judged, with a spare, well-kept body and graying dark hair. Karl, on the other hand, was the epitome of Fascist brutality. His skull was closely cropped and his eyes small, pig-gish, suspicious. His great body seemed tense and alert, ready to smash anything that stood in its way.

JODELL sipped his drink and smiled at Dr. Rilke. "It was so fortunate running on to you like this," he said. He glanced at Kirkland. "The good doctor and I were associates before the war, as he has probably told you."

"Yes, he mentioned it," Kirkland said.

"At that time, he was working on something very unusual and stimulating," Jodell said. "Who knows? Had he completed it, the turn of events might have taken a different slant. Tell me, doctor, have you ever returned to the work you were doing for me?"

Rilke shook his head nervously. "No, I have done very little since arriving in America."

"That is understandable, of course. This free and magnificent country is enough to take anyone's mind off his work." There was only the barest sarcasm in Jodell's voice. Turning to Kirkland, he said: "Dr. Rilke has told me that you are—ah—not unsympathetic to certain political movements which, at the present, are not totally popular here in America."

"I can say only that in my opinion the wrong people were successful in the recent war," Kirkland said.

"I think we understand each other," Jodell said, smiling. "In that case, I

think you'll be interested in a little society which I have the honor of heading. It is a debating club, of sorts, but we have hopes of becoming more active in the near future."

"It would be a privilege to assist you in any way that I may," Kirkland said.

"I'm afraid that our chief concern at the moment is funds to carry on our work."

"I would be delighted to help out in that respect."

"Capital. Perhaps you would like to attend a meeting of our group tonight?"

"It would be an honor."

"Excellent." Jodell glanced at Karl. "I will meet you later at the hotel."

Karl took his dismissal with stiff-backed obedience. "Of course," he said, with a nod of his cropped head.

"I must leave too, I'm afraid," Rilke said, wetting his lips.

"A pity," Kirkland said.

When the two men had gone, Jodell smiled at Kirkland. "I am always happier talking with equals. Karl is a useful sort, but he has his limitations, I fear."

"Of course. Where is this meeting to be held?"

Jodell mentioned a time and an address. Then he said: "We must speak out frankly, my friend. I intended to use the group of men I have assembled to create confusion and fear here in America. That is the way to gain opportunity. We must infest the land with hob-goblins and monsters, and while the hysterical citizens are occupied with them, we will move slowly into control of the government."

"Is your group large?"

"It is quality that counts. Numerically we are not strong. But those I have chosen will do their jobs to the letter. That is the all important thing: obedience." Jodell's voice was sharper as he sounded the last word.

Kirkland repressed a feeling of anger. Jodell's air of superiority was quite annoying.

"We demanded obedience from everyone in the movement," Jodell said, eyeing Kirkland appraisingly. "That would apply to you also, Mr. Kirkland."

"Oh, of course," Kirkland said. He casually took one of the mind-destroying tubes from his vest pocket and toyed with it in his fingers. "This is an ingenious little gadget," he said. "Have you ever seen one?"

"I do not believe so."

"Here let me show you how it works."

Kirkland stepped forward and pointed the tube at Jodell's forehead. He pressed the push-button at the rear of the tube with his thumb and a thin intense bolt of blue light shot out and struck Jodell between the eyes.

Jodell cried out sharply and pressed both hands to his face. He fell back in the chair, his body twisting convulsively. Then his hands dropped from his face, and Kirkland saw a thin stream of saliva drooling from the corner of his mouth. Jodell's eyes were glazed, unseeing, and his face was a mask of blankness.

"Well, well, where is our great leader?" Kirkland said, smiling to himself. He replaced the mind-destroyer tube in his vest pocket, and said: "Stand up!"

Jodell got to his feet, and faced Kirkland with a glazed expression.

"Now listen carefully," Kirkland said, and proceeded to give the staring, immobile German a series of crisp orders. . . .

KIRKLAND met Jane Reynolds in the bar of the hotel twenty minutes later. She was wearing a black-satin dress and a string of pearls about her throat. Her blue-black hair was shining in the soft candlelight, and

her gray eyes and exquisite lips joined to send him a welcoming smile.

"You look very happy," she said to him. "Have you had good news?"

"The very best," Kirkland said. His heart was pumping harder, as it always did when he was near her. "I think I've made an important step this afternoon."

"I'm very glad," she said.

"Does my good fortune mean so much to you?"

"Everything you do—or have done—means a great deal to me," she said gravely.

Kirkland caught her slim white hands impulsively. "I must see you later tonight, Jane. I have so much to tell you. Will you meet me later?"

"Yes, of course."

"Where shall it be?"

Jane Reynolds looked into her drink with a sweet little smile on her lips. "Let me have the key to your hotel room. I'll be waiting there for you when you come back."

Kirkland was almost too surprised to answer; and then, when he realized what she meant, he squeezed her hands so tightly that she winced, and he began to laugh softly and confidently.

She met his eyes smiling.

CHAPTER VI

KIRKLAND got in touch with Clark after he left Jane, and told him to meet him in the lobby at eight-thirty that night.

Clark was waiting when Kirkland arrived.

"What's up?" Clark said. "You got a caper in the works?"

Kirkland slapped Clark's lean hard shoulder. "We're going to a meeting," he said, smiling.

"A meeting? What kind of a meeting? This is no time to be stalling, boss. We got to get rolling. How about lining up some dummies like we had on

that armored-car job?" Clark's thin face was eager and hopeful. "You can get some more zombies, can't you?"

"Oh, yes," Kirkland said. "That's the purpose of the meeting tonight."

"Well, that's great," Clark said. "You know, I been wondering how you make those guys do what you want. What is it, some kind of dope, or something?"

Kirkland looked sharply at Clark. "I wouldn't exert myself speculating about it, if I were you."

Clark shrugged. "Okay, okay, that's your department. But I got a little deal I think will interest you. A Railway Express office, just loaded with cash."

"We'll discuss it later," Kirkland said. "First, our meeting."

The address Jodell had given to Kirkland was a walk-up apartment in the slum area of the city. Kirkland and Clark climbed four flights of steps, and Kirkland rapped sharply on an unpainted door. It was opened instantly by Karl, who nodded to him, but looked sharply at Clark.

"Who is this man?" he snapped.

"A recruit for our movement," Kirkland said. "I will vouch for him, Karl."

The big German moved aside reluctantly. "Come in," he said, in his guttural voice.

There were forty-five or fifty men seated on folding chairs in the long bare apartment. Many of them appeared to be intelligent, normal people; but in some way they all exuded an attitude of bitterness, defeat, and frustration. They were all failures in one manner or another, Kirkland realized. They had failed to make a living, failed to get recognition, failed to meet the everyday challenges of life; and so they were perfect material for men like Jodell, who promised them reprisals against the forces they believed had blocked their way to suc-

cess. Kirkland found them pitiable, foolish, contemptible. Karl led him and Clark to the front of the room where Jodell was seated at a long table. Jodell seemed normal in manner as he greeted them; but his skin was pale and Kirkland saw with satisfaction that his eyes were blank and lifeless.

"Please sit down with me," he said. "I will call the meeting to order."

He cleared his throat and instantly a tense silence settled over the room. Jodell talked for a few moments about the business of the past week, and then, squaring his shoulders and staring over the heads of the group, said: "Now I must make an announcement that is personally difficult for me, but which, in a large sense, gives me the greatest joy. Orders from a high source demand that I leave you. This, of course, will be personally difficult." There was a murmur of astonishment in the room, which Jodell silenced by raising his hand.

"However, it is a source of satisfaction for me to be able to tell you that in my place will stand one of the greatest friends and greatest leaders our cause will know. I now introduce to you my successor, and your leader, a man you will know as Number Five."

He turned to Kirkland and inclined his head. "We are all at your command."

KIRKLAND stood and stared with hard gleaming eyes at the faceless men in the room and felt power and confidence surging through his body. This was what he needed: automatons, robots, slavish dolts, who could be bound to obedience by words, by philosophies, instead of by the power of a machine.

"I will lead you to our goal," he said, in a slow strong voice. "We know the enemy, and he will be our slave."

We know the way to power, and we shall walk it boldly. We know our brothers, and we shall be true to them until the end. I have plans for all of you, but I will not speak of them now. The past is ashes, the future is glory."

Something in his sonorous delivery lighted a spark in the breasts of his audience. They came to their feet, eyes ablaze, faces flushed with the hope of power and their hearts beating at the promise of getting something for nothing. Their hands shot up and out in a stiff salute.

"Leader!" they cried, in a voice as solid as a wall.

The sound was music in Kirkland's ears. This was far more satisfying than the blind obedience that could be obtained with the mind-destroyer. For in this obedience there was love and trust and confidence. These poor helpless creatures needed him, and he would care for them, protect them, lead them where they could not go themselves. Kirkland turned and met Karl's eyes, and a tremor went down his back. There was no love or trust in the big German's gaze. Karl stared at him with murderous hate.

"Something is wrong," he said, in a strangled, bewildered voice. "My colonel would never leave us."

"You question your leader?" Kirkland snapped at him.

Karl looked down at Jodell, then shook his head slowly. "No, I do not question him," he said. "He was my life."

"Now *I* am your life," Kirkland said. "If not, I am your death; and the decision rests with you."

With that Kirkland strode importantly through the room, waving to the men who were on their feet, smiling at him with love and hope.

Outside, Clark caught his arm. The young man's face was hopelessly bewildered. "Look, boss, you don't want

to get mixed up with them crackpots."

Kirkland waved for a cab. "That's not flattering to me, is it? They think I'm their saviour."

"You know what I mean," Clark said, scratching his head. "Those guys that want to overthrow the government and make the world safe for looting are just a bunch of washed-out characters who can't hold a job or get a girl. That's about what it amounts to. Hell, our racket should be banks, not these creeps."

"Power is sweeter than money," Kirkland said. "I'm being patient with you, Clark, because you've been helpful. However, I don't propose to explain and justify my decisions to you indefinitely. Is that clear?"

"Okay, okay," Clark said, throwing up his hands. "But we need some dough, so let's think about that Railway Express office pretty soon."

THEY GOT into a cab but after driving five or six blocks Kirkland told the driver to stop. He looked out the window at the lighted windows of a gun shop, and his eyes were thoughtful.

"I'm going to get out here," he told Clark. "I have an errand that won't take me too long. However, there's a young lady waiting for me in my room, and I want you to meet her and explain that I've been delayed. Do you understand?"

Clark sighed. "No, but I'll tell her. You've got me off-balance, boss, with the way you're hopping around."

"There's a method—" Kirkland stopped, frowning.

"In your madness, was you going to say?" Clark said.

Kirkland turned on him, his pale eyes furious. "Don't ever say anything like that again to me! Do you understand, you blasted idiot?"

"Well, I thought that was what you

were going to say," Clark said uneasily.

Clark settled back, after Kirkland entered the gun shop, and lit a cigarette as the cab rolled on. The driver glanced around at him when they stopped for a light. He shook his head. "What's the matter with the big guy?" he said. "He sounds like a crack-pot."

"He's some character," Clark said, thoughtfully. . .

He rapped gently on the door of Kirkland's hotel room fifteen minutes later. He heard light footsteps, and then the door was opened by Jane Reynolds. The smile on her lips faded when she saw Clark.

"I know, you were expecting somebody else," Clark said. He took off his hat and strolled into the room. "I got bad news for you, baby. The boss is going to be late."

Jane Reynolds closed the door and looked at Clark rather uncertainly. "That's too bad, isn't it?"

Clark shrugged and settled his lean length into a chair. His eyes, bright and steady, mocked the girl. "That depends on several things, of course. The name is Clark, by the way."

"How do you do?" Jane Reynolds said. She sat down facing him, conscious of his eyes on her legs. "Do you work for Mr. Kirkland?"

"In a manner of speaking, yes. You too?"

"No—we're friends."

"That's dandy. Known him long?"

"Just a few weeks."

"You're moving fast," Clark said, glancing about the room with a little smile. "How'd you meet him?"

"We met in the bar here at the hotel." There were spots of angry color in the girl's cheeks. "If you want any more information, I'll send you a complete file in the morning."

"Oh? Is there going to be some interesting development tonight?"

Jane Reynolds stood up, cheeks

flaming now. "What a perfectly despicable thing to say!"

"Relax," Clark said in a bored voice. "I don't give a damn about you and the boss. I'm just killing time. How about a drink?"

Jane sat down, slowly deflated by Clark's manner. "I'm not sure there is anything."

"I'll get it." Clark sauntered to the portable bar and made two drinks. He brought one back, handed it to the girl.

"Thank you," she said. Then: "How long have you known Mr. Kirkland?"

"Turnabout, eh?" Clark said, sinking back into his chair. "Well, that's fair enough. I just bumped into him on the street a few days ago."

"What kind of work does he do?"

"We're in the transfer business," Clark said. "We transfer things from one place to another." The girl seemed nervous, he thought. He noticed the fingers of one of her hands playing with the fringe on the arm of the chair. "Well, I got to be running along," he said, finishing his drink. "I'll be down in my room if the boss wants me."

"I'll tell him that."

"Thanks a lot," Clark said casually, and with a mock salute strolled out the door.

CHAPTER VII

IT WAS eleven-thirty when Kirkland reached his hotel. He went up to his room and fitted the key in the lock, his thoughts spinning with hope and excitement.

But his spirits sank as he stepped in and found the living room empty. Jane hadn't kept her promise, he realized. All his confidence and cheer faded from him, and he slumped into a chair, suddenly tired and disconsolate. His dreams of a vast world-wide empire that had seemed so rosy

and inevitable a few short moments ago, now struck him as the day-dreaming hopes of a child.

Suddenly he heard the click of a light in the bedroom; then a drowsy voice called: "Hello, who's that?"

Kirkland sprang to his feet, grinning, and strode into the bedroom. Jane was lying on his bed, shading her eyes from the light with one hand.

"My dear, I thought you'd forgot our date," he said, sitting beside her and taking one of her hands and patting it fondly.

"No, of course not, but you were so long that I feel asleep. Your man was here, by the way. Clark."

"Yes, I sent him to tell you I'd be late."

"He's an odd person."

"Odd?" Kirkland looked at her with raised eyebrows. "He is vulgar and stupid and immoral, but those are not unusual or odd traits."

"I suppose not."

Kirkland was inflamed by the presence of the girl, and was irritated that the conversation was getting off on a tangent. She was wearing one of his robes, and he saw that her dress and shoes were on a chair. His throat was suddenly dry.

"You probably think I'm a hussy," Jane said, running a finger along the sleeve of his coat.

"No, no, of course not, my dear," Kirkland said, in a ragged voice. "I think you're exquisite." He leaned closer to her, but she said: "Would it be too much trouble for you to get us a drink?"

"Certainly not!" Kirkland sprang to his feet, hurried to the living room and made two strong drinks. He made the girl's extra strong, then decided this was a vulgar and unnecessary way for him to behave. So he poured a bit out of her glass before bringing the drinks into the bedroom. He felt supremely confident and powerful; and

the idea that he'd almost resorted to such a crude device as over-loading her drink struck him as silly.

THEY drank their drinks—Kirkland hastily, the girl slowly—and when she put her glass aside, he could contain himself no longer and caught her in his arms with passionate strength.

"I love you, I love you," he cried.

"You hardly know me," the girl protested, pushing him away gently, but firmly.

"I know all I need to know."

"Well, then, I hardly know you," Jane said, smiling.

"What do you want to know?" Kirkland said, moving back and folding his arms. "I am a great man. I say that simply and sincerely, because I hate humbug and false modesty. I will one day rule millions of people, my dear." He grew excited at the grandiose phrases, at the ring of his own voice. Standing, he paced back and forth before the bed, his pale eyes gleaming brightly. "You may not believe me now, my dear. You may feel this is the exultant talk of a man in love. Some day, however, you will know that I speak the truth. Nothing can stop me but death. I will rule the world." He clenched his big hands and raised his arms to the ceiling. "And what a paradise it will be! Gone will be the conflict of individual wills, in the place of confusion shall be one voice, one decision, and the world will know a peace and freedom it has never known before. Nothing can stop me, nothing *will* stop me!"

"Well, who *would* stop you, if everything is going to be so pleasant?" Jane said in a serious voice.

Kirkland shrugged his big shoulders and a sad little smile touched his lips. "Some people cannot understand that I am working for their own good. They get in the way and will have to

be removed. There are others, of course, who must be used because they are insignificant compared to the value of the final goal. That is too bad, and it saddens me." He sat beside her, troubled and unhappy for the moment. "There were six young men I had to sacrifice only recently, and such ruthless decisions do not come easy to me."

"If you must, you must," Jane said, and patted his hand.

Kirkland brightened. "That's true, of course. They were only unimportant little units of life, in themselves nothing. They should be grateful to me for giving their pitiful existences one brief moment of significance."

"You'd never hurt me, would you?"

"Of course not."

"Because I am a girl?"

Kirkland frowned at the backs of his big square hands. "There was a girl, a pleasant, harmless little thing, who was helpful to me at the outset."

"What was her name?"

Kirkland rubbed his temples with the tips of his fingers. "I don't recall," he said.

"Was it Carol Masterson?"

"Certainly, that's it," Kirkland cried. "How did you know?"

Kirkland turned to the girl, a puzzled smile on his lips. His question hung throbbing in the air; and suddenly its echo seemed to be roaring in his ears.

Jane smiled back at him; but he saw her hand move involuntarily to her throat.

"How did you know?"

Kirkland jumped up and glared at the girl. "Who are you?" he shouted.

"You're behaving foolishly," Jane said. She moved slowly, carefully, to the opposite side of the bed and got to her feet.

KIRKLAND lunged for her as she took a step in the direction of the

door, but she eluded him with a frantic twist of her shoulders and ran into the living room. But Kirkland was at her heels, and before she could open the door his big arm was about her waist and his hand was clapped over her mouth. He carried her struggling figure back to the bedroom, conscious of nothing but his own rage and frustration.

She sank her teeth into the flesh of his palm, and he jerked his hand from her mouth with an oath.

"Let me go, you beast!" she cried.

"Not until I find out who you are and what you're after," Kirkland said, panting. He threw her on the bed and struck her across the mouth with his hand. Something deep inside him, something strange and twisted, melted with pleasure at her cry of pain and the sight of blood flowing from her lips.

She lay on her back, moaning softly, her hair spread on the bed like a dark cloud. The sight of her helplessness, the sight of her slim legs, bare and white, exposed to the thighs by her pulled-up slip, produced a terrible frenzy in Kirkland.

He moved toward her slowly, but then he met her eyes and something he saw there stopped him in his tracks. She was looking at him with horror and disgust and fear; and the intensity of her hatred was more than he could bear.

"You murdered my sister," she said, in a low tight voice.

"Your sister?" His own voice was suddenly weak, faltering.

"Carol Masterson. I'm Denise Masterson."

"You never cared for me, did you?" Kirkland said in a plaintive tone. That was all that mattered, he realized. She had lied to him, pretended to like him, led him into a humiliating and ridiculous position.

"Cared for you?" She repeated his

words mockingly; and her voice was like a scourge. "You're a madman, a diseased, vile madman."

Kirkland straightened stiffly. "Don't say that!" he cried. "Do you imagine for an instant that I was taken in by your performance? I knew who you were immediately." He smiled at her, desperately trying to salvage his pride. "It amused me to play with you. And now the game is over."

She screamed as he lunged at her; but his fingers fastened on her throat and the sound died in a gasp. He tightened his grip slowly, and watched with impassive expression as she clawed weakly at his hands and struggled for breath. Her face turned a violent red, and her eyes bulged from their sockets. Suddenly, with one last tortured convulsion, she went limp in his hands. Kirkland continued to apply pressure for a few seconds, then realized with a shock that he couldn't allow her to die here. Already, he had made a ghastly mistake. Her throat would show the marks of his hands. This girl was the sister of the one he had caused to die by leaping from the Ridgely hotel. The police might be roused to new diligence if she also turned up dead under strange circumstances.

Kirkland released the girl's throat. He rubbed her hands and watched anxiously until he saw that she was beginning to breathe again. She had to die, of course; but not here. And then Kirkland decided that there was no reason for her to die. She had tricked him, mocked him, humiliated him; and she hated him completely. So much the better. He would allow her to live—to be his slave. That should be a neat revenge.

KIRKLAND went into the bathroom and searched through the medicine cabinet until he found a spool of broad adhesive tape. He re-

turned to the still-unconscious girl and taped her wrists and ankles tightly together. He forced what was left of her drink between her teeth and sat back calmly as she coughed her way back to consciousness.

Her lids fluttered open, her eyes met his for a moment; and then she attempted to move. He saw the flicker of fear on her face as she realized she was helpless.

"What are you going to do to me?"

Kirkland took one of the slim mind-destroying tubes from his vest pocket and balanced it on his palm. "Do you know what this is?" he said, smiling.

"No—no, I don't."

"Allow me to explain. This is an instrument developed by a brilliant German scientist. One flash of its ray and the power of decision is destroyed in the human mind. I have used it and I can assure you that it works very effectively. I used it as a matter of fact on your sister. She jumped to her death at my orders. I used it on six young men to stage a brilliant robbery. All were killed, but they would only have grown old as shipping clerks, or something equally undistinguished, so I really did them a favor in sending them on to oblivion. Do you know what I'm going to do with it now? Do you know it's next target?"

The girl turned her head away from his pale gleaming eyes; and bit down on her lip to keep from screaming.

"I see you've guessed," Kirkland said. "Yes, you will make an interesting addition to my life—for a while. I will keep you until I tire of you, and then I will select an amusing manner in which you may destroy yourself. Until I tire of you, however, we should have a highly fascinating time of it." He chuckled and ran the tips of his fingers lightly over her bare shoulders, and then ran his hand through her thick shining hair. "Don't

you think you'll enjoy obeying my every whim, my dear? Can't you imagine some of the delightful tasks I will expect you to perform?"

"*You monster!*" The girl breathed the words through her locked teeth.

Kirkland's face flushed with anger. He leaned forward and put the bulb of the mind-destroying tube against her forehead; and then cursed as she twisted away from him and rolled onto her stomach.

"No, no!" she cried.

Kirkland caught her shoulders and flopped her over on her back; then, pinning her squirming body under his elbow, he again put the bulb squarely between her eyes.

Suddenly, before he could snap on the light, he heard an excited hammering on the front door. Terror shook his huge body like a leaf in a gale. There was anger, fury, in the blows that were being rained on the door. Kirkland realized he was in a desperate spot if this were police. He'd have a nasty job explaining a helplessly bound, half-naked girl; and an even trickier job if she were in the state of catatonic shock induced by the mind-destroyer. Quickly, he got to his feet, and ripped one more length from the roll of tape, and this he plastered tightly across the girl's mouth. Then, sweeping her into his arms, he lumbered across the floor, opened the closet door and dumped her inside on top of the rows of shoes.

Slamming the door, he locked it and put the key in his pocket. Then, composing himself as well as he was able, he closed the bedroom door behind him and walked into the living room.

There was another series of blows on the door as he approached it, and their noise seemed to be echoed in the thudding of his heart. Wetting his dry lips nervously, Kirkland turned the knob and opened the door.

A huge figure shot forward bowling

him over as if he were a child, and great, rosy fingers tightened about his throat. Through pain-blurred eyes he saw Karl, the SS sergeant bending over him, his face contorted with insane fury.

Kirkland attempted to buck his way free from the merciless fingers, but every move he made only increased his torment. He tried to cry out, to beg Karl for mercy, but the words sounded only in his agony-streaked mind. Suddenly it was all over; a tiny blackness in his head grew with alarming swiftness until it encompassed the limits of his consciousness. The blackness was everywhere, destroying his dreams, his plans, his life. It was such a waste, he thought, in his last instant of awareness. And then there was nothing but the blackness.

CHAPTER VIII

HE WASN'T dead after all, Kirkland realized with a slight feeling of astonishment. His throat ached terribly; swallowing was almost not worth the effort; but he was alive. He could feel his chest moving up and down, and he eventually realized that he was half-lying, half-sitting in a deep chair.

Kirkland opened his eyes.

Karl was standing above him, and from Kirkland's fore-shortened view, the SS sergeant seemed as tall as a skyscraper.

"You killed our leader, my colonel," Karl said in a low, savage voice.

"I killed him?"

"He leaped in front of a subway train. You told him to do that, didn't you? After you made him give you command of our Bund."

Kirkland sat up slowly, cautiously, so as not to give the huge German any cause for alarm. His mind was darting about like a frightened rat in a

maze. There was still the mind-destroying tube! If he could get one of those in his hands before Karl had a chance to do anything else to him, then the situation would change drastically.

"So Colonel Jodell is dead, eh?" he said, sitting up still straighter, and moving one hand very slowly toward his vest pocket.

"Yes, you killed him, you swine!"

Of course I did, thought Kirkland. I told him to leap in front of a subway train.

"You're talking nonsense," Kirkland said in a blustering voice; and moved his hand inside his coat.

"I speak the truth."

Kirkland's fat fingers moved nimbly into his vest pocket—and found nothing. His heart jumped with fright, and he felt the blood draining from his face.

Karl laughed unpleasantly and held out one of his huge hands.

"Were you looking for these?" he said.

Kirkland saw the slim mind-destroying tubes resting in Karl's palm.

Karl continued to laugh. Kirkland's amazed expression obviously struck him as funny.

"What—how—" Kirkland sputtered the words, and was silent.

"I have been to see that little swine, Rilke. I knew something was odd about the way my colonel acted to-night. After he killed himself, I went to Rilke and choked the truth from him. I know about these harmless-looking little tubes. I know what they will do to the human brain."

"You saw Rilke?" Kirkland said, just to be saying something.

"Yes, but no one else will," Karl said. "After I choked the truth from him, I choked out his life."

"So Rilke is dead, eh?" Kirkland said. He found that rather amusing. The little scientist, frightened of his own shadow, desperately scurrying

about to find safety, security. And now he was dead. It was a bit sad, too. Kirkland felt a moment of pleasure then in reflecting that he was not one of life's rabbits.

"Don't worry, I'm not going to kill you," Karl said.

"That's good news," Kirkland said.

"No, you are not going to get off so easily," Karl said, harshly. "I am going to use this ingenious invention of Rilke's on you. I am going to destroy your mind, make you a helpless, powerless automaton. That is the only fitting revenge I can take on you."

Kirkland fluttered his hands nervously. "You can't do that to me. You wouldn't be that heartless. I beg you, don't destroy my mind."

"Stand up!" Karl snapped.

Kirkland got reluctantly to his feet. He faced Karl and took a deep breath. "You are a fool!" he said. "I could have brought you wealth, power."

Karl raised one of the slender tubes and pointed it squarely at Kirkland's forehead. Then with a gloating smile he pressed the push-button at the rear end of the tube.

A SHARP muffled report sounded, and Karl screamed with pain as the tube exploded in his hand. He dropped to one knee, sobbing, and holding his seared, maimed paw against his chest; and Kirkland stepped down swiftly and picked up the second tube which had fallen to the floor. Pointing it at Karl, he carefully pressed a catch on the side of the tube, and a bolt of light shot out and struck the sergeant between the eyes. Karl shook his head like a baffled animal; and then the fear and pain and surprise faded from his features, and he looked up at Kirkland with dazed, lusterless eyes.

"Get off the floor," Kirkland said, and the giant German obeyed mutely.

Kirkland was smiling now, his eyes dancing with pleasure at his own cleverness. He had realized that someday someone would get possession of one of the mind-destroyers, and, so, taking his idea from the Florentine daggers which were constructed so that pressure on the blade released a poisoned prong in the handle, he had stopped at the gun shop and had a charge of tri-nitro-cellulose inserted under the push button, and had the beam switch changed to the side of the tube. Thus, he had reasoned, if anyone ever got hold of one, they would logically enough press the push-button, and thus detonate the charge.

Kirkland pocketed the undamaged tube, and strolled about the room for a few moments, congratulating himself on his own brilliance. And then, as he cast his mind back over the events of the last hour, he began to frown. There was that cursed, traitorous girl to dispose of, and this awkward giant. Also, he had no way of knowing that Karl hadn't told others of what he'd learned from Rilke.

He sighed, feeling that it was grossly unfair that he should be troubled with such niggling problems. Scooping up the phone, he called Clark's room, and told him that young man to join him as quickly as possible.

That made him feel better. Clark could handle these minor details. Also, although Kirkland wouldn't admit it, he felt he could lean on Clark's experience in such matters.

Clark knocked on the door a few minutes later. When he came in he glanced at Karl's immobile figure with raised eyebrows, then turned to Kirkland.

"Another of your zombies, eh?"

"Yes. He made the mistake of thinking, so I have prevented him from making such mistakes in the future."

Clark sniffed the air. "What's been going on here? Smells like a shooting

gallery. And what happened to that girl?"

"We have had a lively time of it here," Kirkland said, putting the tips of his fingers together and smiling at Clark. "The girl has turned out to be a traitor."

"What did you do with her?"

"Nothing as yet. I learned that she is the sister of a girl whom I once was forced to eliminate in a very conclusive fashion. She has been following me with some childish idea of taking revenge on me. I was going to —ah— make a zombie out of her, to use your phrase. But somehow that doesn't seem feasible."

"Let's talk plain. Did you kill that girl's sister?"

"I caused her extinction, true enough," Kirkland said.

"Well, I wouldn't do anything to this gal that will alert the cops," Clark said. "They're pretty rock-headed most of the time, but if they get a lead they can be pretty persistent."

"The girl must die."

"Yeah, sure, but you don't want to be mixed up in it." Clark rubbed his chin. "I don't want to stick my neck out either, but it's probably our best bet. Where is she?"

"In my bedroom closet, all trussed up for the kill." Kirkland was feeling relieved now that Clark was taking over the responsibility for the girl.

"Well, let's get moving," Clark said.

Together they went into the bedroom and Kirkland unlocked the closet door. The two men lifted the girl's slight figure and stretched her out on the bed. Her eyes were alive, switching desperately back and forth between Clark and Kirkland.

"Put her dress and shoes in a bag or something," Clark said, "and get me one of your coats. I'll take her down the back stairs, and get rid of her so that nobody will be suspicious."

Kirkland hurried off and returned a few seconds later with a camel's hair coat, which Clark draped about the girl's body. While he was doing this Kirkland scooped up her dress and shoes and put them in a traveling bag.

"All set," Clark said, lifting the girl in his arms. Kirkland pulled the lapels of the camel's hair coat across her taped mouth, and tucked the folds about her feet.

"How long will you be?" he asked.

"I shouldn't be more than an hour."

Kirkland nodded with satisfaction as Clark carried the girl's bundled figure out of the bedroom and down the corridor to the kitchen, where a door led to the rear stairway.

He sighed sadly as he lit a cigarette. He was remembering the girl he had known as Jane Reynolds. She had been lovely, animated, exciting. It was sad that all this appealing beauty must be destroyed. Still, he thought, shrugging, the world was full of personable young women.

And there was only one Kirkland.

CLARK WENT swiftly down the rear steps and reached the rear courtyard of the hotel without having met anyone. There he followed an entrance-way to the alley, turned to the right and walked with long purposeful strides to the next street. Pedestrians on the sidewalk glanced at him curiously as he hurried down the block with the bundled figure in his arms; but aside from this casual interest, no one bothered him. He came to a parked car two blocks from the hotel, and, shifting the girl's weight temporarily to one arm, opened the front door and deposited her on the seat. Slamming the door, he went around the car, climbed in beside her, and, when the motor turned over, roared off down the street.

Clark drove expertly and swiftly through the dark city. The girl struggled to a sitting position, and the lapels of the coat fell away from her face. She stared at Clark's grim profile with terror-stricken eyes. She tried desperately to call out, but the sound was muffled and meaningless.

Clark glanced at her impassively; then turned away and concentrated on his driving.

He turned into a dark driveway ten minutes later. A figure stepped from the shadows of a tall building and put a light in his face.

"Private property, friend," he said.

"I know," Clark said.

The light snapped off and the man said, "Sorry, I didn't recognize you. Need a hand?"

"No, I'm all right."

Clark went around the car and opened the door on the girl's side. He scooped her into his arms and carried her through a dark doorway and a long corridor to an elevator. The elevator took them swiftly to the fifteenth floor, where the doors slid open noiselessly. The corridor was dark, but Clark walked ahead surely for twenty-five or thirty yards until he came to an office door. No light showed beyond the glazed-glass upper portion of the door. Clark fumbled for a key, unlocked the door, and went into the office. He snapped on a light, kicked the door shut, and deposited the girl on a leather sofa.

A door opened on the opposite side of the office and a young man entered and nodded to Clark. This young man was built like a professional football player and his hair was cropped short on his round skull. He was in his shirt sleeves and there was a gun hanging in a holster at his shoulder.

"Progress?" he said to Clark, nodding at the girl.

"Maybe."

CLARK sat down beside the girl and patted her shoulder. "This may hurt a little," he said, and, with one strong motion, jerked the tape from her mouth. "Believe me, it's easier that way," he said, sympathetically, as she gave a cry of pain. He removed the tape from her wrists and ankles, while she stared at him in bewilderment and fear. Pathetically, she raised her eyes to him.

"What are you going to do with me?"

"Nothing at all," Clark said casually, a faint smile on his lean dark face. "Relax, get your circulation working again. Here, this will help." He rubbed her arms, and then her legs, with strong brisk hands.

"That—that will do," the girl said.

"Okay." Clark nodded at the other young man who was sitting on the edge of the desk smoking a cigarette. "Meet Jerry Trenton. He's going to take care of you for the next few days."

"Who—who are you?"

"Department of Justice, Bureau of Investigation," Clark said. "Now just who are you?"

"You're Federal agents?" The girl's voice was incredulous; but near the breaking point with hope.

"That's right," Clark said. "Kirkland said tonight that you were the sister of a girl he had killed. I take it, you aren't Jane Reynolds."

"No, no, I'm not. My name is Masterson, Denise Masterson. My sister, Carol, died a few weeks ago. Apparently, she jumped to her death, but I knew that wasn't true. I knew her, you see, and I knew how happy, how full her life was—" She stopped, and rubbed her forehead tiredly. "I suppose I was a fool. I learned that she had stopped at someone's room just before she—died. An elevator man at the hotel told me that much. I didn't go to the police, as I should

have. I checked with the hotel manager and discovered that Kirkland was one of the few people in his room at that time. And the others seemed beyond any possible suspicion. One was a woman in her seventies, another a semi-invalided man who has lived at the hotel for twenty years. I couldn't see how Kirkland could have caused my sister's death, but I had to find out everything I could. So I followed Kirkland to his new hotel and arranged to meet him." Denise Masterson shrugged and pushed a strand of dark hair away from her forehead. "I've made a mess of everything."

"It took a lot of courage and brains," Clark said in a gentle voice. "We're not interested in Kirkland, however. He's a paranoid, a comic-opera Napoleon-type. The man we want is a German doctor, a man presently using the name of Rilke. We traced Rilke to Kirkland, and lost him. That's why I moved in on Kirkland. Have you ever heard Kirkland talk about a man named Rilke?"

"No, I haven't."

Clark stood up, ran a hand through his crisp dark hair. "Well, the search goes on then. I'll get back to Kirkland," he said, speaking to the stocky young man. "Take good care of Miss Masterson. Her clothes are down in my car. I'll leave them with the guard before I go."

"Please be careful," Denise said, suddenly; and then she colored. "I know you've got your job to do, but Kirkland is an absolute madman."

"Yes, I know. But he—or Rilke—is now in possession of a force that six governments have been fighting to get hold of since the war. Should the wrong ones get it, we can say goodbye to civilization as we know it."

He nodded to her and went out the door.

CHAPTER IX

CLARK STEPPED from the elevator on Kirkland's floor half an hour later; and as he did so, he saw a small sallow-faced man just leaving Kirkland's suite.

They passed in the corridor. Something tugged at Clark's memory. He had seen that sallow-faced man somewhere, sometime. He stopped at Kirkland's door, and glanced back frowning. The little man was waiting for an elevator, hands clasped behind his back, staring innocently at the indicator-arrow above the elevator door.

Clark shrugged, and gave it up. He'd remember who the little man was about the middle of next month, and probably just as he was about to fall asleep. And then the little man would perhaps turn out to be a waiter he'd known before the war.

He tapped on Kirkland's door, and Kirkland's loud confident voice answered, "Come in."

Clark strolled in, automatically shifting his mind and body into the role he was playing for Kirkland. He made a circle with his thumb and forefinger and grinned at Kirkland, who was sitting in a deep chair with a drink in his hand. Karl, the giant SS sergeant, was still standing stupidly at the wall.

"I take it from that gesture that everything has been handled satisfactorily," Kirkland said.

"But perfect. She's out of the way for good, and there won't even be a corpus delectable for the cops to worry about."

"Excellent!" Kirkland sipped his drink slowly. He seemed very calm, very deliberate, as he turned his pale eyes full on Clark. "Now we can take up another slight case of treachery."

"Yeah? Who's that?"

Kirkland smiled and got to his feet. "I had a caller in your absence, Clark.

A man who knew you quite well—in other surroundings. He told me some interesting things about you."

"Yeah, who was this guy?"

"He's associated with the group I am heading," Kirkland said softly. "You remember the group, don't you? You went there with me tonight."

A warning bell was sounding in Clark's mind. He shrugged. "Sure, I remember it. A bunch of crackpots, I thought. I told you not to get mixed up with them."

"One of those—ah—crackpots recognized you tonight and, as a dutiful servant, promptly came to me with his information."

"Cut out the double-talk," Clark said, forcing a hard, belligerent tone into his voice. "What're you trying to tell me?"

Kirkland smiled. "Merely that I know of your association with the Federal Bureau of Investigation, Mr. Clark. You were childishly optimistic to expect to fool me, you know."

Clark now remembered the sallow-faced man he'd met in the hallway. D'Annulio was his name. He'd bumped into him on a job in California four years ago. The man had remembered him. Obviously.

"You're crazy," he said nonchalantly to Kirkland. "You think I'm a G-Man? That's a laugh."

"You're lying," Kirkland cried, suddenly furious. "You're all lying, cheating, filthy, ungrateful dogs. I would have given you wealth, power, women. But no! All you're capable of is wanting to hold to the miserable world you now know." He put his hand inside his coat; but Clark was watching him, and his own hand speared into his pocket and came out with a gun.

"Just freeze, if you want to live," he said tightly. "Get your hands up fast. High, *higher!*"

"Kill him, Karl!" Kirkland screamed.

The giant SS sergeant leaped forward in mindless obedience, and crashed a fist the size of a ham into the side of Clark's head. Clark went down, as pinwheels of light exploded in his brain. The gun fell from his hand, and then Karl was on top of him, raining blows on his face and body.

Clark rolled onto his stomach, dazed and weak, yet aware that, unless he could protect himself from Karl's attack, he'd be dead in a matter of minutes. He worked his knees up under his body, raising Karl's bulk a foot from the floor, and then he hurled himself to one side and the German fell awkwardly to the ground. Clark scrambled to his feet and kicked Karl in the mouth with all his strength as he attempted to crawl to his knees. The German sprawled on his back, kicking his arms and legs like a helpless turtle. Breathing painfully, Clark looked about for the gun, found it and scooped it up in his right hand.

When Karl staggered to his feet, Clark had the gun trained on him.

"Stop!" he snapped.

But Karl kept advancing, his blasted mind knowing only the command given it by Kirkland; the command to kill.

"Stop!" Clark shouted again, and then pulled the trigger twice as Karl suddenly charged.

The German halted abruptly, a look of surprise on his face, as the slugs tore into his body. Then, with a strangled sob, he doubled-up and crashed to the floor.

Clark wheeled about swiftly, his gun ready for a new target. But there was no need for a gun. The room was empty, the door open.

Kirkland was gone.

THE TALL worried-looking man behind the wheel turned with an annoyed start as Kirkland slipped in beside him and slammed the door.

"Hey, what's the idea? I'm waiting for my wife."

"I thought we'd take a little drive," Kirkland murmured. He glanced back at the ornate entrance of his hotel, and smiled a secretive little smile as he thought of how he handled those who had betrayed him.

"You getting out, Mister, or do I call a cop?"

Kirkland turned back to the driver and took the slender mind-destroying tube from his vest pocket. He pressed the catch on the side and a beam of light struck the driver in the eyes. He let out a hoarse, surprised cry, and then shook his head slowly as his eyes and face became blank.

"Start the car and drive north," Kirkland said. He settled back and lit a cigarette with a feeling of satisfaction. Everything was working beautifully now, he knew. His mind was clear and sharp. His plans were vast, exciting and practical. What were his plans? He frowned at the tip of his cigarette as that question occurred to him. Well, no matter. A man like him didn't need plans. Plans were for dolts and idiots. True brilliance was in improvisation. Kirkland was aware of a very pleasant sensation. He seemed to be drifting in space, and his mind was spinning swiftly, effortlessly. A thousand ideas came to him, but he discarded them almost instantly. He discarded ideas so swiftly that he hardly took time to identify them. All he knew was that in the spinning brilliance of his mind there was no room for the mediocre, the second-rate. And that was as it should be.

The countryside was beautiful in the darkness. Kirkland stared at the trees, the meadows, the occasional snug farms, all covered with night-time mystery. The wind in his face was cool and sweet. He thought of Jane Reynolds and Clark and the

foolish Rilke, and laughed pleasurably. They were naughty children. He had been a father to them, kind, protective, powerful; but they had chosen to disobey him. That was the greatest sin a man could commit, Kirkland realized suddenly. The thought caused his heart to pound with excitement. It was the very core and tissue of all knowledge. Obey! Kirkland had obeyed his father. Naturally. His father had whipped him from the time he was a toddling child, had whipped him for every infraction of the thousand strict rules of the house. That memory brought a sudden sharp pain to the base of Kirkland's skull. He tried to push the thought away, but it persisted on the fringe of his consciousness. It lurked there, a small shadow, hiding from him. He laughed and looked away from it, pretending to be interested in something else, trying to lure it back in the open so he could catch it. But it was clever. It hid just out of reach, and it was laughing too.

Suddenly the car stopped. They had reached an intersection, and the driver stared at the forked road helplessly.

Kirkland looked out at the road signs. He saw an arrow pointing to the left. Under it was a sign: ARMY AIR BASE.

"Turn left," Kirkland ordered the driver.

Lost in the brilliant refractions of his spinning mind, Kirkland rode on with an amused smile on his lips, until he became aware of a light shining in his eyes. Behind the light was a visored cap, and under the cap was a young stern face.

"Wake up, Mac!" It was the mouth in the young face talking. "This is the Army Air Base. You got off the road back at the intersection. Turn around and drive straight for about ten minutes and you'll be okay."

Kirkland craftily raised the mind-

destroying tube until it pointed at the young soldier's face. Then he depressed the switch. The bolt of light shot forth, and the soldier let out a cry of surprise.

"Take me to the commanding officer, please," Kirkland said.

The soldier rubbed his forehead and then straightened up to attention. Stepping onto the running board, he said in a metallic voice, "Straight ahead to the large building beyond the flag post."

"Straight ahead," Kirkland said to his driver, and folded his arms comfortably.

THE GENERAL of the Post was a tall, thin man with straight black hair and eyes that were accustomed to express any emotion he happened to be feeling. Generals do not need to mask their reactions. Their rank gives them that privilege. They can be angry, fretful, sarcastic, or furious, secure in the knowledge that their emotional excesses will be met only by straight-backed impassive silence from subordinates.

Now as the General of the Post stormed out of his private office he was angry. He was angry at being disturbed at this hour of the night by a sentry who should have been on guard at the main gate. He was making no effort to conceal his anger. His snapping black eyes raked Kirkland.

"What in the name of thunder do you want?" he shouted.

His anger stopped the spinning blades of Kirkland's mind. He shook his head slightly as that sensation disappeared. He felt very solid and very calm as he advanced toward the General.

"I wish to talk with you," he said, and raised the mind-destroying tube and let out a beam of light that caught the General between the eyes. "Go back to your office. I have no inten-

tion of discussing matters with you in a reception room."

Turning slowly, the General walked with stiff legs back to his office. Kirkland followed him and closed the door. He knew what he wanted now; what he had to do.

"Issue these instructions," he told the General. "Order a twin-engined plane with a maximum bomb load to be fueled and readied for a take-off within the hour. Do you fly?"

"Yes."

"Very well. We won't need a pilot. Get busy."

The General nodded stiffly and reached for a phone....

WHEN CLARK realized that Kirkland had escaped, he grabbed the phone and called the local police. He got through to an inspector and told him to send out a general alarm for Kirkland. After that he called Washington and got his superior. The sound of that crisp quiet voice was reassuring.

"Very well, Clark. We'll pin him down, don't worry. You handle the local end." The connection was broken abruptly.

Clark hurried into the corridor, and walked to the elevators. Several persons were peering out their doors, awakened by the shots. He knew that the house detective would be up soon; and, having no desire to waste time in explanations, he walked down two flights before getting an elevator. In the street he hailed a cab and gave the driver the address of the Federal Building.

Denise Masterson was sitting on the couch and Jerry Trenton was talking on the phone when Clark entered. There were cartons of coffee on the desk, and the air was blue with cigarette smoke.

Trenton hung up, glanced at Clark.

"That was the boss. I understand Kirkland got away."

"That's right." Clark helped himself to a paper container of coffee and sat down wearily beside Denise.

"Well, what now?"

"We wait," Clark said, in a flat tired voice. "We wait and pray to God they get him."

KIRKLAND was enjoying the roar of the plane's engines. He paced up and down along the runway, inspecting the graceful lines of the ship, admiring its metal sheen. Mechanics were making final checks of the wheels, the bomb racks, the communication system. They worked with swift, automatic expertness, but their faces were curious and anxious as they flicked occasional glances at their General, who stood, ram-rod straight, watching their work with blank, glazed eyes.

Kirkland stopped beside the General. "Do you know the route to New York?"

"Yes."

"Can we make it comfortably in this ship?"

"Yes."

Kirkland smiled contentedly and watched yellowish dawn breaking in the east. His thoughts were calm and happy....

TRENTON answered a phone, spoke briefly, then waved to Clark. "Here's something," he said, putting his hand over the mouthpiece.

Clark picked up the extension. He heard the police Inspector's nasal voice. "We got a funny report from out at the Army Air Base. They got a couple of fellows there who seem to be in a state of shock. And the Exec there tells me a civilian drove in a few hours ago and took off in a plane with General Myers, the Commandant."

"They've already taken-off?" Clark snapped.

"That's right. And the mechanics who serviced the plane say they loaded it with bombs."

"Did they say anything about how the General acted? Did he seem to be behaving strangely?"

"Yeah, that's another thing. They said the General was acting queer. Didn't talk to anyone, acted like he was in a coma, or something."

Clark hung up the extension and called his chief's private number in Washington. He talked swiftly, urgently, then replaced the phone and rubbed his forehead.

Denise came to his side. "What is it?"

"Kirkland is flying somewhere with a bomb-loaded plane. My chief is getting hold of the Chief of Staff now. That plane has got to be intercepted."

"How?"

"They'll have to shoot it down."

"Will they do that? I mean, isn't one of their own Generals flying the ship?"

"That's right." Clark rubbed his lean tired face. "I don't know if they'll do it or not."

The minutes ticked by in the small room. Outside a gray cold dawn was changing the color of night. Clark sat beside Denise, and, instinctively, held her hand. It was an unconscious gesture, an unspoken appeal for human warmth and assurance.

Then, twenty-five minutes later, the phone rang. Clark bounded to the desk and scooped up the receiver. He listened for a moment, his face taut and anxious, then put the phone down slowly.

"They've charted the plane on a course to New York," he said. "The Air Force is sending up fighters to intercept it. Trenton, see if we can pick up anything on the short-wave."

Trenton snapped on the radio and

went to work, his big fingers surprisingly agile on the frequency rheostat.

Static chattered weirdly through the room, interspersed with nightmarish fragments from weather stations throughout the world, from hams and airline transmitters. Then, a strong casual voice with an unmistakable Southern accent sounded:

"Major Rovere reporting at sixteen thousand feet above the base at Jersey City. We have contacted a twin-engined bomber, an Army B-25, heading roughly toward New York at a speed of about two hundred and seventy miles per hour. The plane is numbered 024789. Standing by. Over."

Another voice broke through a crash of static, and at the sound of that voice, Trenton glanced at Clark significantly. "You recognize him?" he asked.

Clark nodded. "Somebody had the sense to wake a five-star General."

The second voice was crisp, almost harsh in its authority. "Major Rovere, remain on 024789's course, and stay in contact with me. I want to know when and if it changes course. Do you understand?"

"Roger, Wilco, sir."

Clark struck the desk savagely. "They're going to wait and see," he said. "Damn it, why don't they shoot it down now?"

"That's pretty tough duty," Trenton said. "There's an Air Force General flying that ship, remember."

"That's right, it's tough," Clark said in a low bitter voice.

KIRKLAND stared happily into the golden dawn, marveling at the delights of flying. Everything below seemed so small, so pitiful. There was truth in flight, he told himself serenely. Things were small, were pitiful, when you got on top of them and saw them in their proper perspective.

To the stiff-backed General at his

side, he said: "Can you plot a course to Lake Success?"

"Yes."

"Do so."

Kirkland beamed. That was the inevitable destination. There was the cancer of mankind, a literal monument to man's foolish insistence on discussion, on relative rights, on the pointless sovereignty of the human will. Destroy that breeding ground of illogic, and there would be chance for one strong voice, one strong man, one strong plan.

He fingered the slim mind-destroying tube and there was a contented smile on his lips as the General banked slightly to the new course....

CLARK stopped pacing as Major Rovere's soft voice eased through the static.

"Major Rovere reporting, sir. B-25 024789 is changing course a bit. Seems to be heading north north-east."

Clark lit a cigarette and dropped the match on the floor. Then he snapped his fingers and grabbed a phone. He had been trying to think of all that he knew about Kirkland, trying to make some sense out of his present action. And now he saw that there was only one place that Kirkland would logically head for.

When his chief answered, he said two words: "Lake Success!"

There was a pause. Then, for once in his career, a touch of excitement sounded in his chief's voice. "We'll check that from here. We're plotting them by radar now. Damn it, I hope you're wrong. They'll be in session in an hour or so."

KIRKLAND was musing on destiny.

He saw himself as an inevitable force in the history of the world. He had been needed; therefore he had been created. It was his mission to destroy confusion, and that meant de-

stroying freedom. Only the free knew turmoil; slaves knew only peace.

There was a tremendous longing in his soul as he stared at the mind-destroying tube. He wished he could be free from his own turmoil and confusion, wished that he too could escape into the peace of a robot-world. Everyone equal, everyone pursuing the same ordained ends! What a delightful prospect!

He noticed a smaller plane banking ahead of them, and saw that it was followed by three other ships. They were slim and beautiful, shining in the early sun. With a roar they shot over them, and, banking, came around again; and this time they approached on a straighter and truer line.

Harbingers, Kirkland thought. Harbingers of success coming to meet him. With a thrill of joy, Kirkland raised the mind-destroying tube and pointed it squarely at his own eyes. His mind teetered giddily, ready to rush off and escape its own confusion and excitement. He pressed the catch and the bolt of light struck him in the face. Pain flooded through his brain, and the mocking shadows lingering on the edge of his consciousness vanished in a bright white flash.

Everything faded slowly and he was aware of nothing at all but a tremendous chattering and the sound of splintering glass and a hot pain in his chest. But the sound of his own laughter drove all that away forever....

"MAJOR ROVERE reporting, sir. Bomber 024789 is going down in a spin, with smoke coming out of motor and from the tail. It's going to crash in an empty stretch of the beach. There! It's down, sir, burning."

"Very good, Major." The Commanding General's voice was quiet, soft. "Get down as close as you can and see—see if there are any survivors."

Clark snapped off the radio and stood for a moment staring out at the bright sunlight. Then he lit a cigarette with fingers that were trembling slightly, and glanced at Denise Masterson. She came to his side and put a hand lightly on his arm.

"You're tired," she said. "Can't you stop for a while now, get some sleep?"

He smiled thinly. "I'll buy you a cup of coffee, if you like. Maybe I can get some sleep about next week."

"Thank you, I'd like coffee."

Clark nodded to Trenton and walked slowly to the door. With Denise's hand on his arm he left the office and went tiredly toward the elevators.

SCIENCE-FICTION ACT

By ROBERT BURKE

"EVERYBODY'S tryin' tuh get intuh da act," Jimmy Durante used to scream—but the same might be said today of science-fiction. Publishers, discovering the avid popular interest in this new type of fiction, along with movie producers are all jumping into the act and producing their masterpieces. It is a healthy sign indeed to see that at long last public interest has been sufficiently aroused to create this demand. And from all appearances it is one which will not be easily nor shortly sated. And that is gratifying. Too long science-fiction has been the baby brother of literary effort.

An examination of the "slick" magazines will show that they are frequently running themes of fantasy and science-fiction. Hollywood producers are breaking their backs to get their latest s-f films before the public. With this mad scramble to produce s-f, it is only natural to ask what sort of work are they doing?

Veteran and novice readers of *Amazing Stories* and *Fantastic Adventures* will

have no difficulty in winnowing the wheat from the chaff and in passing judgment on some of this incredibly poor work they're being confronted with. This is not simply a case of blowing one's own horn! It is just a fact, that these relative newcomers to the field don't know what science-fiction is, don't recognize it for the highly specialized medium it is, and as a result nine-tenths of what you read outside the pages of *Amazing* and *Fantastic* is ridiculously poor in quality. Themes and ideas which have been worked over twenty years ago in these pages are just now beginning to reach the general non-s-f reading public.

In light of the literary slaughter that these amateurs in the field are engaging in, we'd like to recommend them to examine the pages of these magazines if they want to see what quality material is like. We're getting the cream of the crop and we'll continue to do so—after all we've been investigating the field since nineteen twenty-six. You can't beat that!

THE MAGIC WHEEL

By JOHN WESTON

THE FEDERAL Communications Commission has just made its recommendations to the public and to the television industry concerning that industry's next step. It has put the stamp of approval on the color wheel system in contrast to the all electronic systems which have been presented to it. This seems rather remarkable, but the FCC has given good reasons.

After making a detached and disinterested study of the whole problem it has come up with these conclusions. Eventually a color television system employing pure electronics, will be the accepted standard, but the present electronic systems presented by the big companies are inferior, blurry and not sharply defined. In addition that cannot be adapted easily.

On the other hand the simply system employing little more than a colored revolving wheel in front of a ordinary pic-

ture tube, produces a very clear, beautifully colored picture. Furthermore this method works on ordinary receivers in black and white as well and adapters can be easily made for color itself.

Unfortunately the practical limitations with this method seem to hold out on tubes larger than twelve and a half inches in diameter. At any rate that is where the situation stands today. If the manufacturers agree to cooperate on this rotating wheel system, we'll have color television shortly. If not, the FCC will sit back and wait for further improvements in electronic scanning.

Strictly as matter of personal opinion, this observer feels that we'd be better off to wait and get the electronic system, but then color may be as far away as five years. Whatever happens, it's coming. You pay your money and you take your choice...

ROCKET THRILLS!

By
CAL WEBB

THOSE WHO have been fortunate enough to be present at a V-2 firing at White Sands, New Mexico admit that there is no thrill to compare with it, even if they are there only as spectators. Little shudders and chills run up and down one's spine as the realization takes hold that here one is witness to the open door of the future. What actually happens in a V-2 firing?

An observer, hidden in the steel concrete observation blocks isn't too much interested at the time in the technicalities of the firing. The physical event itself is thrilling enough. But it is still fascinating to us to realize what goes on in the slim cylinder.

At the command "fire!" a switch is turned on which allows a trickle of alcohol and liquid oxygen to run into the combustion chamber. If this starting pulse burns smoothly and ignites without trouble, then the fuel pumps are switched on and these seventy-five horsepower giants pour oxygen and alcohol as fast as possible into the raging inferno. The resulting tornado of gases streams from the V-2's jets giving an initial thrust of about two G's. Thus the V-2 as remembered from motion picture film, begins to rise relatively slowly, almost appearing to balance gently on the jutting pillar of flame.

But then the combustion becomes ravenous. Now the gases issue forth in tremen-

dous volume and speed. The thrust rapidly builds up to its maximum, a matter of five or six G's, a linear acceleration of a hundred and eighty feet per second. Actually this acceleration is not fantastic save in light of the twelve ton mass of the rocket. A jet plane pulling out of a dive often exceeds accelerations like this. Thus, a man could ride a V-2 comparatively easily without even nearing "black-out".

Some sixty-five seconds after the rocket takes off its fuel is exhausted. Imagine burning up so many tons of liquid oxygen and alcohol in such a brief span of time. Is it any wonder that the V-2 rocket engine generates for a time power at the rate of five hundred thousand horsepower?

From the time the rocket runs out of fuel sixty-five seconds after starting (an altitude of about twenty miles), it coasts to its maximum altitude under pure momentum. The single V-2 has risen to a hundred and sixteen miles this way. The Wac Corporal, a smaller rocket, attached to the V-2 managed with that double impulse to make two hundred and fifty miles of height, the highest anything of human creation has gone.

Technicians at the testing ground are certain that a Lunar rocket could be built today if the government or some philanthropist would put up the necessary millions. They know it will have to be done some time—why not now?

DOES RAINMAKING WORK?

By J. R. MARKS

CONTRARY to popular opinion, the new scientific art of rainmaking is not quite an established fact. True there have been hundreds of tests involving the "seeding" of clouds with small particles of various chemicals, and in many cases rainfall has followed that seeding. But in terms of an exact controlled series of experiments with perfect duplication of results by disinterested technicians, rainmaking is not on a scientific basis.

The question is, "why is this so?"

It can be demonstrated very nicely in the laboratory that if you take a super-saturated cloud of water-vapor and introduce dust or crystalline matter, small droplets precipitate out and consequently rain may be said to have been created. Also as was mentioned, rain often followed the seeding of clouds with potassium iodide crystals. But a cold examination of the facts does not warrant the conclusion that the seeding is the cause of the rain. It is generally found that other at-

mospheric conditions can readily account for the rainmaking.

Even Langmuir who has done so much in this field, admits that his thesis is far from proved. And he is encouraging numerous other experimentors to delve into the work in the hope that they can resolve this peculiar problem. Amateur experimentors have reported enthusiastically. But their work has generally been on shaky foundations too. The whole picture is still in a state of flux.

The next few years will see a concerted effort to put rainmaking on a strictly scientific basis, a basis which will permit the exact duplication of any experimenters' work. This means, that knowing the precise scientific conditions prevailing in the atmosphere at any given time, a scientist may select a suitable seeding agent and produce a definite quantity of rain. This is a far cry from the Indian praying to his gods!

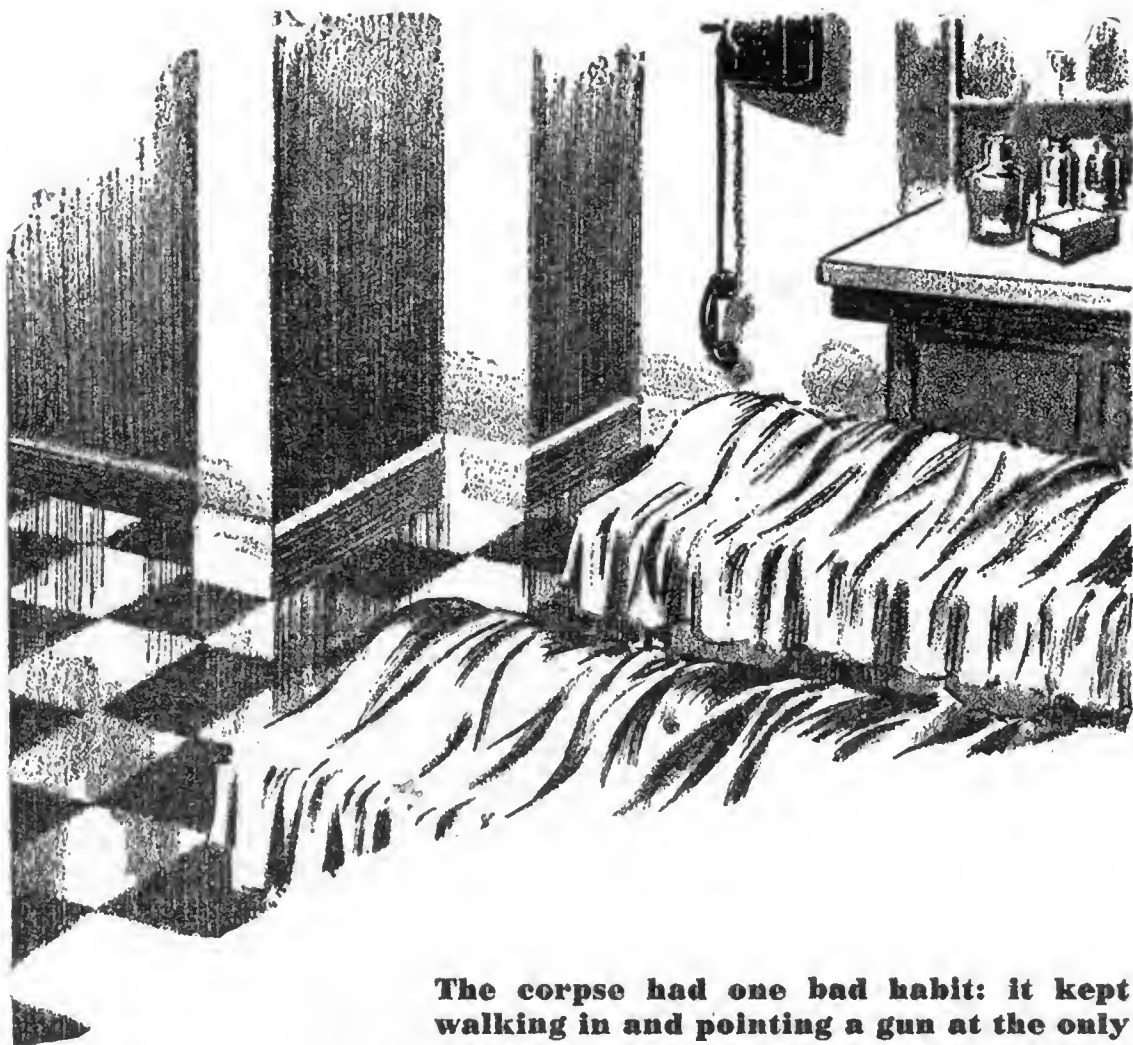
★ ★ ★

"YOU'LL DIE YESTERDAY!"

*By
Rog Phillips*



At first, in the weak light, he thought he saw the body. But the drawer was empty!



The corpse had one bad habit: it kept walking in and pointing a gun at the only two people interested in keeping it alive!

“THANK YOU,” January Stevens said, his voice drowned out by the applause of the audience in the small lecture hall. He turned to leave the platform.

The hall was filled almost to capacity with an audience of quietly dressed men and women. They had come to hear a world-famous author speak on his most recent book, and the attention they had given his words was complete and sincere during the entire two hours.

“Just a moment, Mr. Stevens,” the lady chairman said, standing up. The applause stilled. “Perhaps the audience has a few questions to ask. I myself have one.” She paused while Jan turned to face her. “What is your next book about? You *are* writing another, aren’t you?”

“No, I’m not,” Jan said. “Of course I might write another sometime; but right now I have no plans in that direction.”

“What!” the chairwoman said, smil-

ing. "You write a best seller and aren't making plans to reap the benefits of your fame?" When Jan only smiled she turned to the audience. Any questions? Ah. There's a hand. Yes?"

"Where did you get the idea for your book 'Me and My Robot', Mr. Stevens?" the owner of the hand asked, rising.

"Well, that's hard to say," Jan said. He darted a glance at Paula Morris sitting at the side in the front row, then turned his eyes back to the man. He seemed just an innocent spectator with a vacuous face. "Where *do* ideas come from?" He grinned. There was a ripple of laughter in the audience.

"What I mean is," the man persisted, "did it come from any research work being done at present, by you or by someone you know?"

Jan glanced toward Paula again, frowning uneasily. While his eyes were on her a shot shattered the silence of the auditorium. Jan's eyes swung up in time to see the man who had asked him the questions stiffen, then sag down, dropping out of sight behind a row of chairs.

In the stunned hush that followed a chair overturned at the rear of the hall.

"He did it!" a woman's voice shouted, clutching at a man. The man struck at her with a hand containing a gun. Free of the clutching fingers, he ran to the exit and vanished.

Jan was already off the platform running up the aisle. He reached the exit seconds behind the fleeing gunman. The doorman was coming toward him.

"What happened in there?" the doorman asked. "I thought I heard a shot."

"Did a man just run out this door?" Jan asked hurriedly.

"No," the doorman said.

"He must have," Jan said. "Which way did he go?"

"Nobody came out any doors," the man insisted. "I ought to know. I've been out here all the time."

Jan turned back into the auditorium. A crowd had gathered about the spot where lay the man who had been shot. Jan pushed through and saw Paula bending over him in a hastily cleared area.

"How is he, Paula?" he asked, stooping down beside her.

The man on the floor looked up at Jan, then smiled painfully. "I should have waited to hear what you wanted to tell me," he said, smiling ruefully.

"But you were shot!" Jan said. "How could you—?"

"I didn't mean just now," the man said. "I meant—"

A shudder shook his body. He became still.

"He's dead," Paula whispered, drawing away from the man, her eyes wide.

"Dead?" a scared voice came from the crowd. "Let's get out of here, Emma. I don't want to get mixed up in a murder."

"We've got to find out who he was, Paula," Jan said in a low voice.

He knelt down by the dead man and felt inside his breast pocket, drawing out a leather billfold and some printed sheets.

The doorman was saying, "Everyone has to stay here until the police arrive. I've locked the doors."

Jan and Paula slipped over to a corner by themselves while they inspected their find.

"This's some sort of license," Jan said, coming across a card. He read, "Fred Stone, age—What! A hundred and seven? Expires January seventh, 2163. Wonder what that 'T.T. Permit' means? But of course this is some sort of crazy card. Doesn't mean any-

thing. How could it?"

"What are these printed sheets?" Paula said, taking them from Jan's hand and unfolding them. "Look at this!"

Together they read the heading. "Speech of January Stevens before the Society at their meeting of April 8, 1953."

"Why, Jan!" Paula exclaimed. "That's today!" Her eyes scanned the first few paragraphs. "And it's word for word the speech you just gave."

"I see it is," Jan said. "But it can't be. I didn't prepare my talk. I made it up as I went along, and there's just—" He looked at Paula wide-eyed. "There's nothing except the shorthand notes of the society's secretary. Mrs. Gregory the chairwoman said my speech would be taken down in shorthand and printed in the Society's quarterly bulletin!" He inspected the papers grimly. "I'm going to keep these," he said. "I'll give the police his wallet when they get here."

THE DOOR opened in the darkened room. Lights came on, revealing the room as a well-equipped modern scientific laboratory. Jan closed the door and locked it.

"I've got to conduct some tests on these papers Paula," he said, going over to a table holding several varnished cases. "No use waiting until morning. I couldn't sleep anyway, wondering about them."

He swung open the door on the front of one of the cases, bringing out an instrument resembling a box camera.

"This is one of the things I bought with the royalties from my book," he explained. "It's a commercial development of the Geiger Counter for telling the age of organic compounds. It tells their age by measuring their radio-activity."

He took a pair of headphones from the cabinet and placed them over his ears, plugging the cord into the camera-like box.

"Now," he said. "I take this lead plate to block off emanations from the table, then lay the papers on the lead." He did so, then placed the camera-like box lens down on the papers. "I plug it in now," he said. "Now whenever an atom explodes it makes a click in the earphones. I count the clicks for a minute."

He listened intently while Paula watched. Finally he took off the headphones and placed them over Paula's ears. She listened while he took a booklet from the cabinet and looked at tables.

"Paula," he said, his voice sounding queer. "According to the tables those papers are just two hundred and ten years old."

"Two hundred and ten?" Paula echoed. "But—but that would mean—"

Jan nodded. "It jibes with the expiration date on that card belonging to Fred Stone. It means that he came from the year 2163, two hundred and ten years in the future. That T. T. permit means time travel."

Paula took off the earphones.

"He came back in Time," Jan said, "carrying the printed copy of my speech about my book, to ask me questions about it. He was killed before he could ask those questions."

"Why?" Paula asked.

"I wish I knew," Jan said. "Was it to keep him from getting the answers to questions he was going to ask—or was it to keep me from learning what questions he was going to ask?"

At the door a man had materialized out of thin air. Jan and Paula, their backs to the door, hadn't seen him. He cautiously unlocked the door and swung it open, then stood in the open-

ing as though he had just entered.

"Put your hands up and get away from that bench," he said abruptly.

At the first sound of his voice Jan and Paula turned, startled. They stared at him and his pointed gun, their eyes widening.

"How did you get in?" Jan demanded. "That door was locked from the inside!"

"Never mind that," the man said. "Step away from that bench so I can get those papers."

Jan looked at the man keenly as he raised his hands and slowly moved away from the bench.

"You're a killer," he said. "I got a good look at you there in the auditorium."

The man grinned at him mirthlessly, then moved warily to the bench, pocketing the papers Jan had been testing.

"What you know won't be believed," he said. "Otherwise I'd be forced to kill both of you. And I'm taking your only proof with me."

He backed toward the exit, jumped through and slammed the door.

Instantly Jan was in motion, running toward the door. He flung it open and looked out. Slowly he came back across the room.

"He was gone," he said. "He must have vanished, because there wasn't time for him to get to the end of the hall."

"Put up your hands," the now familiar voice of the killer sounded from one corner of the room.

Jan and Paula turned in the direction of the voice.

The man advanced toward them cautiously, his gun trained on them.

"Turn around, Stevens," he ordered.

Jan slowly turned, his hands elevated as high as he could get them. The killer's free hand searched Jan's pockets swiftly and expertly.

"What did you do with it?" he de-

manded, his voice harsh.

"With what?" Jan asked, mystified. "You—"

"Drop that gun, Forbes," a new voice said.

The killer spun around and fired. The man across the room ducked to one side and ran along the wall, trying to get Jan and Paula out of his line of fire. He was wearing a brown uniform with a police badge on his chest.

The killer jumped to the door and flung it open, darting out. The uniformed man ran after him. Jan, lowering his hands, went to the door and looked out. He turned back into the laboratory.

"Gone," he said. "I wonder what he wanted this time? The police got everything except those papers he took." He frowned. "That man in uniform acted like a policeman. He had a badge..."

"I'm getting a headache," Paula said shakily. "Take me home, darling."

THE PHONE rang. Jan carefully lifted the tip of the electric soldering iron from the maze of wires, small radio tubes, condensers, and case-covered units of the electronic device he was putting together.

He crossed the laboratory to the desk. Lifting the telephone receiver, he said, "Hello?"

"Jan!" It was Paula's voice exploding into a note of relief. "I just saw him!"

"The killer?" Jan said excitedly. "Where are you? I'll get the police and come right over."

"No, not the killer," Paula said. "Fred Stone."

"Fred Stone?" Jan echoed. "But you couldn't! He was killed."

"That's who I mean," Paula said. "I just saw him. He was standing on the corner. By the time I could get

to where he was he was gone; but there wasn't any doubt. It was him!"

"Where are you now," Jan asked.

"Downstairs," Paula said. "I'm coming up."

"Wait!" Jan said. "I'll be right down. I want you to show me where you saw Fred Stone."

"No," Paula said. "I think he was looking for the address where your office is. You should stay there in case he calls."

There was a click at the other end. Jan hung up, looked around the laboratory, then went to the door and opened it to look out. He left the door partly ajar and went back to his soldering. A few moments later there were sharp clicks of heels from the hall. Paula came through the door, her eyes bright with excitement.

"Good morning, darling," she said, going up to Jan, placing her hands against his chest, and giving him a light kiss. When Jan tried to kiss her again she evaded him. "Wipe the lipstick off," she said. "You may have callers."

"That's right," Jan said, taking out a handkerchief and rubbing his lips. "But Fred Stone—huh-uh. You must have seen someone that just looks like him."

"I'd swear it was him," Paula said, becoming serious. "Remember, I saw him quite close. I couldn't mistake someone else for him."

"But you didn't see the man on the sidewalk close up?" Jan said.

"N-no." Paula hesitated. "But he was wearing the same clothes. Ordinary business suit, but if you remember it was cut a little peculiarly and a shade of gray I've never seen before. I couldn't be mistaken."

"We'll settle that right now," Jan said, grinning.

He went to the phone. In a few moments he was connected with his party.

"Hello," he said. "Trowbridge? This is Jan Stevens."

"Oh, hello, Mr. Stevens," the voice at the other end said. "I was just going to call you. I'd like for you and Miss Morris to come down to my office. Can you take the time?"

"Of course," Jan said. "We'll be right down. She's here with me. But I wanted to ask you something. Do you still have the body of the man who was shot last night?"

"Of course," Trowbridge said. "Down at the morgue. Why?"

"Are you sure?" Jan asked. "Paula insists that she just saw him down on the corner very much alive."

"What!" Trowbridge's voice barked. There was a brief silence. "On second thought, Stevens, stay where you are. I have something I want you to look at. I'll come over to your laboratory. You and Miss Morris stay there. I won't take long to get there."

"We'll be here," Jan promised. He hung up. "The detective in charge of the murder investigation is coming up," he told Paula.

"He says they still have the corpse in the morgue."

"I don't care," Paula said doggedly. "I'd stake my life that it was the same man."

"There are enough crazy things about this," Jan said. "I think you're wrong—"

The phone rang. Jan picked it up.

"Mr. Stevens," the voice of Trowbridge spoke. "I just checked with the morgue. Don't know why I did. A hunch. It paid off. The corpse is gone."

"Huh?" Jan said, startled.

"You and Miss Morris be down on the sidewalk waiting," Trowbridge went on. "I'll be over as fast as I can get there—which will be about as long as it takes you to get down to the street. I'm bringing men to help

look for Fred Stone."

Jan hung up. He looked at Paula. "The corpse has vanished," he said.

"Then it *was* Fred Stone!" Paula said triumphantly.

Jan shook his head. "Fred Stone was dead," he said positively. "He couldn't come back to life." He was taking off his laboratory apron. "Trowbridge wants us to meet him down in front of the building right away. He's going to try to find Fred Stone—or whoever it was you saw."

He tossed the apron on a lab bench. They went out, slamming the door.

THE DOOR opened again in twenty minutes. Paula came into the lab, followed by a man with wide shoulders and angular jaws. Trowbridge. Jan followed, closing the door.

"If he's still in the neighborhood," Trowbridge was saying, "the men I've got staked out will see him."

Personally I think Paula was mistaken," Jan said. "That man, Fred Stone, was dead. It couldn't be him."

"That's what the coroner says too," Trowbridge said, "but the corpse is missing. It was either stolen right out of the morgue or it got up and walked out." He studied Jan quietly for a moment. "How about telling me the truth, Mr. Stevens?" he asked quietly.

"What do you mean?" Jan asked uneasily.

"For one thing," Trowbridge said, "you claimed you had never seen Fred Stone before last night when he stood up in the audience to ask you a question. But three people swear that the last words of the dying man were addressed to you, and they were, 'I should have waited to hear what you wanted to tell me.' That indicates he knew you or had seen you before."

"Not necessarily," Jan said. "He could have been referring to waiting to be shot until I had answered his

questions. When people are dying they sometimes say peculiar things. At the time that's what I thought—that it was an attempt at humor on his part. A sort of 'Too bad I had to get shot. Darned impolite of me,' sort of thing. I still think that's what it was."

"Also," Trowbridge went on, "several witnesses tell me you took some papers out of Stone's pocket. What did you do with them, and why didn't you hand them over to me when I arrived on the scene?"

"Oh, those," Jan said uncomfortably. "They're gone. The—" He took a deep breath. "Paula and I came here afterwards last night. I wanted to try some tests on those papers. The killer showed up and took them away from us."

"I see," Trowbridge almost whispered. "And of course you called the police at once." Then, when Jan shook his head mutely, "Why not? What do you think the police department is for? I don't like this. You aren't acting like an innocent bystander who saw a stranger shot. You steal papers. The killer shows up and takes them away from you, and you keep mum about it." He glared at Jan. "I think you'd better start talking, or I'm going to have to lock you up as a material witness and—" He clamped his lips together.

"You won't believe the truth," Jan said, "so there's no use talking."

"Why don't you try me?" Trowbridge said.

Jan looked at Paula helplessly.

"All right," he said. "The talk I gave last night wasn't a prepared speech. It was off the cuff. I understand a stenographer was there taking shorthand, and the speech would be published in the quarterly journal of the Society; but last night there was no existing copy of my speech—couldn't be." He paused a moment, then went on. "Those papers I took

were printed pages out of a journal, and they were my speech as I gave it last night. The paper was several years old."

"Go on," Trowbridge said. "I'm listening."

"In other words," Jan said, "those papers were impossible. They couldn't be in that man's pocket—unless he came from the future. Time travel. Coming back in Time from the future."

"I don't quite follow you," Trowbridge said.

"What I mean is," Jan said, "in a few weeks or months the stenographer will have translated her shorthand notes and my speech last night will be printed in the journal. It will be sent to a few hundred members of the society. Some will go to libraries. They set on shelves for years. Fred Stone, after quite a few years, runs across a copy of the journal, reads my speech, and by means of time travel comes back to attend the meeting and ask me some questions."

"And gets shot," Trowbridge added. "Tell me, doctor, just how far in the future did he come from?"

"Twenty-one sixty-three," Jan said quietly.

"You got that, of course, from the card in his billfold."

"Yes," Jan agreed, "but I confirmed before they were stolen from me. I did that by measuring the radio-activity of the paper and comparing it with charts."

Trowbridge looked at Jan with a sarcastic curve to his smile. Then slowly it was replaced by a frustrated expression.

"That's so absurd," he said, "that I find myself half believing it against my will." He paced around the lab, a frown on his face, while Jan and Paula watched him. "You know," he said, turning toward them abruptly,

"if what you say it true, then Fred Stone could have been killed last night and yet be walking around full of life today."

"How?" Jan said. "I don't see how time travel could bring a man back to life after being dead. That's the thing I can't see."

"If he could come to last night from the future, Trowbridge said, "he could go to last night from today."

"That's right!" Jan exclaimed. "The man Paula saw could be Fred Stone then!"

"The way I see it," Trowbridge said, "right now he's trying to find you. That's what he's doing in this neighborhood. He can't find you, so he takes another jump backwards in Time and attends the meeting. *Then* he gets killed."

HE LOOKED at Jan and Paula who were staring at him with horror filled eyes.

"Another thing," Trowbridge said. "It gives his last words some sense. Suppose he does find you—say an hour from now—and you start to tell him he's going to be killed last night"—he chuckled dryly—"but he's scared away and doesn't have time to listen to you. Then last night when he was shot he suddenly realized you had tried to warn him."

Breath exploded from Jan's lungs. He leaned against a bench weakly.

"But now that we know all that," Paula said excitedly, "we can be prepared and force him to listen. Then he will know, and won't go back to last night, and won't be killed."

"You think so?" Trowbridge said dryly. "You forget that his being killed is already a fact. You can't change it."

"But when we see him it won't have happened yet to him," Paula said. "It's still in *his* future, and he can change that by simply not going back

to yesterday."

"Trowbridge is right," Jan said wearily. "We'll see Fred Stone sometime in our future. Maybe today when he locates us. But everything that takes place is unchangeable. His future has already happened. It can't be changed."

"If it could," Trowbridge said, "we could borrow his time travel machine or whatever it is he uses, and whenever there's an accident and someone gets killed we could go back before the accident and warn the victim, and the accident wouldn't happen."

"Maybe that could be done," Paula said earnestly. "And even if you're right, we shouldn't give up. We should try to change what has happened. We must warn him."

"Of course we'll try," Jan said. "But didn't he imply last night with his last words that we tried to warn him?"

"Oh!" Paula said angrily. "You're already giving up. I can just see you, January, trying half-heartedly to warn him, because you're convinced ahead of time that you won't succeed. We've got to really try. We've got to save his life. Do you understand?"

"Miss Morris is right," Trowbridge said. A twisted smile appeared on his lips. "And don't ever say anything about this. If my superiors ever learned I had treated your story seriously they'd put me back on a beat." He sobered. "Fred Stone will probably contact you here. He'll have to if you two stay here, anyway. So what we'll do is this. We'll get some men up here. In the hall and elevators, right in this room, down on the street. The minute Fred Stone shows up we'll grab him and hold him until we can make sure he knows he's going to be killed last night. That's all we can do."

He went to the phone...

"SOME MORE coffee, Paula?" Jan asked, holding the thermos invitingly.

Paula looked down at the remains of the meal on her plate and the empty coffee cup. "No, thanks," she said. "I'm so full of it now it's running out of my ears."

Trowbridge punched out a cigarette on the already over filled ashtray. "I'll have another," he said. He stared at the top of Jan's head as the coffee was poured. "You know, Jan," he said slowly, "there's one thing I haven't got straightened out yet. Why was—or will be—Fred Stone killed? The way you painted it he was just curious about your speech and wanted to ask a question or two about it. So he travels back in time to ask those questions. What was your speech about? Why should anyone a couple of hundred years from now be so curious about what you said—or didn't say, to be more exact. And why should he be killed *before he could find out what he wanted to know?*"

Jan looked at Paula, frowning. "I don't know," he said. "I've been trying to figure out that myself. But there's another possibility. Suppose he was killed to prevent him from revealing something, rather than to prevent him from finding out something."

Trowbridge thought this over, lighting another cigarette.

"If that's the way it is," he said, "then the future is able to change. If it couldn't, whatever he might possibly tell you wouldn't matter. It would be a matter of history whether he did or not, and it would be silly of the killer to try to prevent something that had already happened anyway."

"No," Jan said. "I think the future is an open book that can be changed. It's the past that can't be changed."

Paula snorted. "Don't forget all this is the remote past to the time Fred Stone came from," she said. "By the

same token it would be unchangeable to him. And to the murderer."

"Paula's right," Trowbridge chuckled.

"Then we come down to this," Jan said. "We know that travel in time is possible now. We could have someone come back to our present time from a million years in the future—or up to the present from a million years in the past. Either none of it is changeable, and our least little thought or action is as unalterable as a movie, or else it's all changeable. If it's unalterable there's no such thing as free will. Even the flutter of an eyelid is as unchangeable as the travel of the planets in their orbits, according to the one picture. In the other picture, the past could be changed. Columbus could be prevented from discovering America at any moment—and we would cease to exist."

"I doubt if it would be that drastic," Trowbridge said. "If Columbus was prevented from discovering America, someone else would. Details could be altered but major trends and developments probably couldn't."

"Maybe," Jan said doubtfully.

"But let's get back to the subject," Trowbridge said. "Do you know anything that a man from the future might be very anxious to find out? Enough so to come back in Time? Something so important that someone else from his Time would follow him and kill him to keep him from finding out? *Something the killer knows?*"

Jan stiffened in surprise. Trowbridge watched him intently.

"So there is something," he grunted.

"No," Jan said with a supreme effort at being casual. "It's just that I hadn't thought of that possibility before—that the murderer might know something he killed Fred Stone to keep him from finding out." He had gained control of himself now. "How

could I know what it is? Something hinted at in my speech perhaps. Some little thing I don't know the implications of, that two centuries has brought out in a different light that I can't suspect."

"Or something that you as a scientist have discovered and never given out to the world," Trowbridge suggested. "What's the name of this best seller of yours? I think I'd like something to read while we wait for Fred Stone to show up."

He went to the phone, picked it up, and looked questioningly at Jan. Jan shrugged in defeat.

"You'll find a copy in the top drawer of the desk," he said glumly. "It's called 'Me and My Robot'."

"Thanks," Trowbridge said, returning the phone gently to its cradle. "Thanks." He opened the drawer.

TROWBRIDGE closed the book slowly. He looked up at Paula, across the laboratory asleep on a cot that had been set up, and at Jan who was heating some fluid in a test tube over a bunsen burner.

"Nice story, Jan," he commented. Jan looked over at him and smiled nervously. "An intriguing story," Trowbridge went on. "So well written that at times I almost became convinced it was a true story. That idea of a recording of the mind—taken from the idea of taking a recording of the voice, no doubt—and placing it in a synthetic brain that controls a robot body. *That* could be fact. I've seen one of those robot monstrosities they build for the movie and television shows, with its plastic muscles that look and perform just like real muscles." He looked down at the book on his knee and tapped it significantly while Jan watched. "The way you tied it up so neatly, too. All the robots destroyed. The secret safe in the mind of the hero where it was des-

tined to remain, because it was too dangerous to let loose. I suppose your speech last night was about this book?"

"Yes," Jan said, turning back to the now boiling test tube.

"The hero George couldn't have been you, could it, Jan?" Trowbridge asked dryly.

"Why of course not," Jan said without turning to look at Trowbridge. "It's just a story. That's all."

"And the girl in the story—Louise—she couldn't by any chance be Paula?"

"Well," Jan said, "of course I made her very much like Paula."

"How long has Mr. Morris been dead?" Trowbridge asked. He jumped to his feet abruptly, a startled look on his face. "Wait a minute!" he exclaimed. "A year and a half ago I was on a case. A patient in a hospital that was going to die anyway in a few hours was supposedly killed. The outer layer of his brain was fried in some mysterious way. *If* he was killed—even the doctors couldn't be positive one way or another—it was just the way it happened in your book when the fellow's mind was transplanted into the synthetic brain, killing him in the process." He nodded slowly. Jan continued to concentrate on the test tube, his back to Trowbridge. Trowbridge smiled at the back sympathetically. "Don't worry, Jan," he said. "Your secret is safe as far as I'm concerned."

"You mean—" Jan said, turning abruptly to stare at the detective with hope dawning in his eyes.

Trowbridge nodded. "If the story in this book is true," he said, "I agree with you that it should be kept secret. Forgotten."

He stretched wearily, laid the book on the desk.

"But it's only fiction," Jan said, smiling queerly. "How could it be any-

thing else? Don't you agree?"

"Of course," Trowbridge said, grinning.

He went to the door and opened it, sticking his head out into the hall with his shoulders against the door edge and the wall. The low rumble of whispered conversation went on for a minute, then he stepped back into the room, two plainclothesmen coming in.

"I'm going home, Mr. Stevens," Trowbridge said. "These men will stay here with you. They'll be relieved at midnight. You and Miss Morris are to remain here until Fred Stone shows up. If you want anything, one of my men will see that you get it." He looked over at Paula who was still asleep, nodded in Jan's direction, and left.

The two men took up positions on either side of the door and pulled up laboratory stools, settling down to a long vigil.

TROWBRIDGE, freshly shaven and alert looking, smiled sympathetically at Jan and Paula. "Too bad you had to stay here all night for nothing," he said. "It'll probably be all over by noon. Then you can go home and get some real rest."

"I didn't mind," Paula said. "It's worth it if we can save Fred Stone's life."

"I did some work," Jan said. "The time wasn't exactly wasted."

The phone shrilled unexpectedly. The three of them looked at it, then at one another. Jan went to it. Lifting it hesitantly he said, "Hello? Yes, this is Mr. Stevens... That's quite all right... Yes. Thanks very much for telling me... It was quite all right... Goodbye." He hung up, an excited expression on his face.

"That was the president of the Society," he said. "About fifteen minutes ago a man called her and asked where he could get in touch with the

author of 'Me and My Robot'. She told him, then got to wondering if she had done the right thing. That's why she called." He looked from Trowbridge to Paula excitedly. "Maybe it was Fred Stone!"

"Did she give him this address?" Trowbridge asked.

"Yes," Jan said. "It was the only one she knew."

"Then he should be here almost any minute!" Paula said.

"My man in the lobby of the building will call up as soon as he gets on the elevator," Trowbridge said. "When he gets on this floor there are men posted out of sight who will prevent him from leaving until and unless I give an okay."

They looked at the door, becoming conscious of the occasional footsteps outside in the hall as people passed by, the vague shadow outline of their forms as they passed the frosted glass of the door.

"They might miss him," Jan said.

"It's possible, of course," Trowbridge said. "But—"

He stopped. Someone had halted outside. The shadow of an arm went up. A knock sounded.

"They missed him in the lobby," Trowbridge said in a low voice, "but my men in the hall will see him and close in as soon as he enters. Go to the door and let him in, Jan."

Jan was already on his way to the door. He opened it wide. Standing framed in the doorway was—not Fred Stone—but the man who had killed him!

"Are you January Stevens?" the man asked politely.

"Why—why yes," Jan stammered.

"May I come in Mr. Stevens?" the man asked. "I see you have company, but what I want to see you about is very important."

"Come right in," Trowbridge spoke up, his voice overly loud. Two men

had appeared silently behind the man. "Bring him in, boys," Trowbridge added as he saw them.

The man, feeling heavy hands grasp his arms, turned startled but unafraid eyes at them. As they firmly pressured him through the doorway into the laboratory he started to resist, then gave in, a puzzled but tolerant smile on his lips.

"We didn't expect *you*," Jan said.

"Naturally not," the man said. "Who are these people, the police?"

"Yes," Jan said.

"Yes," Trowbridge echoed. "Jan, is this the man you saw?" When Jan nodded he turned to the man. "I'm arresting you for murder," he said simply. "I'd also like to ask you some questions right now before the boys take you in; but I also have to advise you that anything you say can be used against you as evidence, and you don't have to answer any of the questions before getting an attorney." He looked past the man to one of his two subordinates. "Put the cuffs on him. We don't want to take any chances."

Jan and Paula watched, fascinated, as the handcuffs were snapped on the man.

"What's your name?" Trowbridge asked abruptly.

"Sigmund Archer," the man answered. He looked from Trowbridge to Jan and Paula, his eyes bright—almost laughing. "Would you tell me the name of the person I'm supposed to have killed?" Trowbridge stared at him but didn't answer. "Would it by any chance be Fred Stone?" Sigmund Archer asked.

"You should know," Trowbridge grunted.

"But I don't," Archer said, showing relief. "I just wanted to make sure it won't be—wasn't some innocent party."

"It was Fred Stone," Trowbridge said. "Why did you do it?"

Sigmund Archer laughed. Jan fought to keep from smiling, and looked at the puzzled frown on Trowbridge's face.

"Don't you see what he's laughing about?" Jan said. "He hasn't gone back to night before last and killed Fred Stone yet. If you arrest him for that murder it will prevent him from going back and committing the murder. There won't have been any murder, and you can't convict him."

"So it will be night before last!" Archer said musingly.

"Keep quiet and let me do the talking," Trowbridge said to Jan sternly. Then to Archer, "If that's the way it will be, okay. I'd much rather prevent a killing than catch a killer. You're still under arrest until we can warn Fred Stone."

"If in my future I shoot Fred Stone night before last in your past," Sigmund Archer said, "isn't it a foregone conclusion that you aren't going to be able to hold me and prevent that which has already happened?"

"You're in a better position to answer that than I am," Trowbridge said. "I don't know anything about the mumbo jumbo of time travel. All I know is that a murder has been committed, and that you have been positively identified as the murderer. It's my duty to arrest you and bring you to trial. I intend to carry out my duty."

SIGMUND ARCHER looked at Trowbridge, his smile fading slowly.

"I suppose you have Fred Stone's remains," he said suddenly. "Mind if I look at them for the purpose of identifying them?"

Trowbridge opened his mouth, then clamped it shut, giving Jan and Paula warning looks. He appeared to be thinking for a moment.

"We might arrange that later," he

said cautiously.

"In other words you had the body but it's vanished," Archer said calmly. "That would make an interesting point in law, if it ever came to court. But it won't, because if it did there would be a record of it *where* I come from."

Anger suffused Trowbridge's features. He opened his mouth to make an angry retort. The anger vanished abruptly, to be replaced by shrewdness.

"I nearly forgot the main question I was going to ask you," he said. "Why are you after Fred Stone? Why did you shoot him?"

"I didn't—yet," Archer said. "My reason—I'm quite sure that January Stevens can guess that."

He looked at Jan. Trowbridge smiled knowingly at Jan and said, "It's possible I could guess far more accurately than he could."

"I'm thirsty," Sigmund Archer said abruptly. "Could I have a glass of water?"

"I'll get it," Jan said, going toward the water cooler against the wall. All eyes were on him for an instant.

A clang of something metallic falling to the floor jerked their attention back. Sigmund Archer had vanished. The handcuffs that had been on his wrists were on the floor.

"I caught it out of the corner of my eye," one of the two detectives said. "He became sort of transparent like he was made of glass, and vanished."

"And," Trowbridge said dryly, "he could have done it at any time since he came in here."

The phone shrilled with startling suddenness. It was Trowbridge who recovered from the paralysis of surprise first. He took two quick strides to the phone and scooped it up.

"Yes," he said curtly. Then, "Okay, stand by down there. Don't let him out if he goes back down." He dropped the phone and looked at the others.

"Fred Stone just entered the elevator," he said quietly.

THE KNOCK at the door was three regularly spaced polite raps. Every eye in the room was fixed intently on the shadowy movements on the frosted glass that accompanied the knocking.

It was Trowbridge who went to the door, motioning Jan back.

Jan looked at Paula desperately, then took a deep breath. Paula, eyes round, turned from him back to the door as Trowbridge twisted the knob.

After he had twisted the knob Trowbridge seemed to hesitate a second. Then he jerked the door open and reached out, seizing the startled Fred Stone by the arm and jerking him off balance, propelling him into the room.

"Fred!" Jan said swiftly. "You're going to be killed!"

But the hurtling figure of Fred Stone had vanished before their eyes, leaving Trowbridge with a stupid surprise on his face as he looked at his empty fingers.

"Now you've done it!" Jan said. "You scared the wits out of him with that stupid play."

"Maybe he'll be back," Trowbridge said, still looking at his hand peculiarly.

"Be back?" Jan echoed angrily. "Don't you remember what he said

just before he died? That he wished he had waited to hear what I was trying to say to him? He won't be back. He's gone back in time to attend that lecture and ask his questions—and be killed."

"I guess you're right," Trowbridge said, shaking his hand jerkily as if it was asleep. "So there's no use sticking around here any longer." He gave his two subordinates a significant look and went to the door.

He opened it and stood to one side while they went out. His eyes were on Jan, sympathetically. Jan was glaring at him, so angry he was speechless.

"I wouldn't bother about it too much if I were you, Jan," he said kindly. "Remember you have a secret you'd die rather than reveal. A scientific secret that could conceivably do a lot of damage in the wrong hands—now or two hundred years from now. Me, I probably wouldn't understand it if you told it to me. One thing I do know though is cops. Being one myself I can tell one a mile off." A grin flashed across his face as he backed out of the door. He closed it until only his face and part of his body were visible. "You see, Jan," he said softly, "Sigmund Archer was a cop."

He withdrew his head. The door closed softly.

RED DEATH



By LEE OWEN



PERIODICALLY the ocean coasts of the country are swept by an invader from the sea, who kills off enormous amounts of sea-life. Coastal people are familiar with the sight of the sea turning a murky red, and then later seeing the bodies of every conceivable type of sea-life turning up their white bellies.

Up until recent investigations, scientists said that invader was protozoic and that it killed the sea-life by poisoning the water. Presumably the organic matter emitted quantities of poison which got into the blood stream. But this is not the case.

Actually what the invader does is to suffocate the fish to death!

The single celled organisms which color the sea such a deep red, react with and change the amount of oxygen in the water. Because they exist in such great number, and oversuch a huge volume, large areas of the sea near the shore are rendered practically uninhabitable to fish because the water is left with no oxygen that can be extracted by the gill mechanism. Those helpless fish caught in the volume simply and effectively are unable to breathe!



His frantic gaze showed there was no way out; then the avalanche struck him

SECRET OF THE BURNING FINGER

By John W. Jakes

Nobody could stand between Geller and that buried silver — and live. But it seems there are forces stronger than any man . . .

GELLER kept his hands tightly clenched upon the wheel. The dash lights of the truck's sealed pressurized cab made patches of brilliance on his long taciturn face. Beyond the windows, the rocky fields of the moon rolled by under the star-hung night. The truck wheels, clinging to the road with their sealed-in gravity plates, threw into the void veils of white pumice like ghostly fingers.

To the right of the road rose the Leibnitz Mountains, towering piles of twisting rock thirty thousand feet high. Geller smiled thinly, glancing at them.

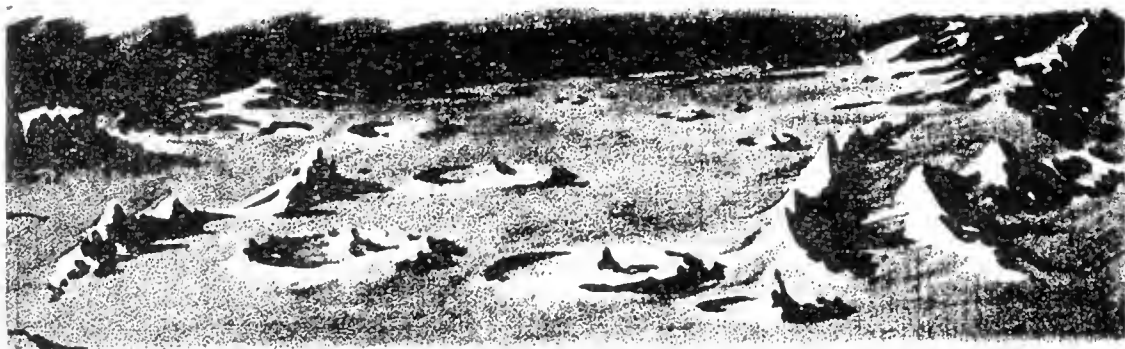
They held their secret so quietly, locked in the hardness. Other men had

tried to wrest the treasure from them, and failed. But Geller felt he would succeed, and with success would come the easy life among the wealthy people of the system that, as a freight-handler at the Luna City docks, or a waiter on the asteroid yachts, he had always longed for.

The road curved abruptly, and crawled at an angle toward a high hill. Geller tensed expectantly and shoved the accelerator to the floor.

The truck careened over the brink of the hill.

At the foot of the mountains sat a hemisphere of whiteness, housing the small frontier town of New Taos. And beyond that, where the mountains rose, stood the Burning Finger,



washed in a harsh silver glow. In that pointing bit of rock, some ten thousand feet high, lay all of Geller's hopes.

There was a dead man in a tiny hotel back at Port-of-the-Moon, an old lunar pioneer who had spent his younger days, among other places, in the Leibnitz range. The key to the Burning Finger had been his, and Geller had stuck a knife in his belly and taken it from him.

As he drove on, the roadway leveled out. The glassteel shell that surrounded New Taos and held its atmosphere, bulged from the pumice plain like a great beetle against the shining mountains and the icy dark.

Geller felt sweat under his jacket. He patted his shirt, making sure he had the credentials, then applied the brake as the truck crunched to a halt before the transparent wall.

He flashed his lights, and a section of the wall moved upward. He drove forward a few feet into the airlock. As he opened the cab door, he heard the rush of air entering the chamber. A wall port opened and one of the Mexican guards walked over, peering at him with alert brown eyes.

"Bowman," the man in the truck said, handing down the identity card.

"You are a trader, *senor*?" the guard inquired.

"That's right." He held the wheel tightly, knowing his hands would tremble if he did not.

"There is no picture of you on this card, *Senor* Bowman. All identity cards require..."

Well, he had known all along that it might trip him up. He had changed cards with a barkeep in Luna City who had a freedom of movement visa. But the barkeep hadn't been willing to let Geller keep the picture from his own card, and the picture of the man called Bowman was useless to him.

"I lost it," Geller bluffed. "I was in a fight at Iowatown, and I lost it."

"*Por favor, senor*," the guard began, "you must produce—"

"For God's sake," Geller said sharply. "Do you think I'd be out here if it wasn't for my business?" He tried to appear disgusted. "The days of criminals escaping on the moon are pretty well over. I'll be damned if I'll go all the way back just because I haven't got a picture."

The guard hesitated, then tried to smile as he observed Geller carefully. "*Si senor*. Of course you cannot go back." He pressed a lever and the inner lock door rose.

"Pass," he said, gesturing broadly.

A tight quirk of humor played on Geller's mouth as he yanked the shift and stepped on the accelerator. The truck rolled into the main street of New Taos.

And the first barrier was behind him.

IT WAS a drowsy little place, layed out wheel-like about a central plaza. At the far side of the town rose the hydroponic bean factory, its only industry. The townspeople, a mixture of Mexican, Indian and American bloods, lived life slowly in the dusty streets. The buildings for the most part were of clay. And despite the silver bulk of a small-rocked port office, the town managed to maintain an air of Southwestern America, from which most of its inhabitants had migrated.

Geller drove slowly, avoiding fat roosters waddling in the road. Two boys in white shirts and trousers wrestled in an alley mouth. Somewhere a guitar whispered, and a voice was lifted in the haunting *Senora del Sol*.

The air was artificially pungent, and soft dusky light sifted down from the roof of the hemisphere high above. Geller parked in a lot beside a low building marked *New Taos Cantina*.

He climbed down, making sure that

the gun at his hip was full, and walked to the bar entrance. There, he turned and looked beyond the glass-teel wall of the city.

The Burning Finger reared its impregnable slender brilliance aloft, against the background of the range. The shaft of stone seemed naughty.

"I've got you," Geller murmured, and pushed through the Cantina door.

A few men were at the bar, drinking and speaking softly. Soames sat off in a corner, rubbing his dirty yellow mustache and blinking his eyes from behind folds of pink fat. He glanced up, saw Geller, then stared down at the table again.

"Terran whisky," Geller said to the barkeep. "Give me the bottle."

He threw down a solar, took the bottle and walked over to Soames. He sat down with his back to the bar and lit a cigarette.

"Took you long enough," Soames grumbled.

"Try driving that road sometime."

Soames shrugged, steering clear of an argument in exactly the same way he avoided work. "Any trouble?"

"Not much. I couldn't keep my picture when I traded identity cards. But the guard at the lock was willing enough to be talked down." He poured two drinks. Soames gulped his immediately.

"Got the fork?" he asked. The whisky made sucking rivers through his mustache.

"In the truck. And don't talk so goddamned loud."

Soames blinked. "All right. All right, only I want to get this over with. Maybe what the old man at Port-of-the-Moon said wasn't right. Maybe there isn't anything in the Burning Finger at all."

"But he had some of the silver," Geller replied, striking his fist on the table for emphasis. "He used the fork to open it a year ago, and he got some of the silver, but he didn't have any

way of transporting it. He got pumice-cough and had to lay up for a while."

"Maybe it wasn't silver," Soames insisted. "Maybe—"

"Listen," Geller growled. "Twenty-eight years ago Jamie Lachlin and some of the others from Moonhole hijacked the *Megathon* with ten thousand solars in silver ingots for the Luna City government buildings. The old man was with Lachlin, and he said they buried it in a crypt in the Burning Finger, and went into hiding. There wasn't any town here then, and all the men except the oldster got killed off by the law. The treasure is a legend on Luna. Others have tried to dig out the stuff, and failed. Now we've got it for certain!

"Things like this-only happen once in a man's span of years. We were sitting in the hotel when the old guy walks in drunk and starts talking. When you get a chance like that, you *make* it pay off!"

"Are you sure no one found the body when you got the fork?" Soames asked quickly. "If anyone..."

"I sent you out here to arrange for the rocket, not to worry about me. Did you fix things?"

"Yes. Yes, I did." Soames watched the table morosely. "Class F Jumper, gyro piloted to Luna City. Two hundred solars. All we had. It's ready right now, down at the port."

Geller laughed. "Don't worry. By tomorrow night, we'll have a fortune. Once we've loaded it in the ship, I can tinker with the gyro and we can fly our own course. Right out to Venus."

"When do we get started?" asked Soames.

"There's no sense in waiting. We might as well—"

Geller's fingers constricted on the whisky glass. He kept his eyes narrowed, not looking around. The muted talking of men at the bar had sudden-

ly ceased. And the faraway guitar was silent.

Soames had his eyes wide open. Sweat made small beads on his mustache.

"*Senor,*" said a voice behind Geller.

Slowly, he stood up and turned around.

THERE WERE two of them. The guard from the air lock, and a Terran officer from the rocket port. The Earthman's face was square like a stone chunk. His eyes searched Geller's, and he kept his blue automatic leveled at the other man's chest.

"Is your name Geller?" the Earthman said.

"No. Bowman. Phillip Bowman."

"We have a description of you," the officer said quietly, "from Control Police at Port-of-the-Moon. You killed an old man in a hotel there. A clerk reported your description when he saw you coming out of the room. We got it on the standard viz release."

"You're mistaken," Geller said. The Mexican was watching him with fearful eyes. The others along the bar were silent interested spectators. Soames was whispering something under his breath.

"No, I'm not mistaken. Raffertez here reported to me that you came into town without an identity picture. We always check such matters. He gave me a description. Both descriptions match."

"I told you," Soames mumbled thickly. "I told you to be careful..."

"Keep quiet," Geller snapped. "What are you going to do with us?"

"Take you to the rocket port and ship you back on the mail shuttle."

"Let me finish my drink." He moved his hand toward the glass, and grabbed for his gun. The officer shot and Geller ducked, swinging his weapon into line. It blasted once,

loudly. The rocket officer sagged at the knees and collapsed in a twisted heap.

Geller swung the gun on the rest of the men. "Stay right where you are. Soames, get out to the truck and get the box from the dash compartment."

Soames moved his fat bulk rapidly, uttering faint bleats of terror. Geller backed through the door.

"I've got the box," Soames wheezed behind him.

"Hold on to it. It's the fork."

He slammed the doors. "Run," he said quickly, "to the rocket port."

They dashed down the peaceful street. A dark-haired woman jumped out of their way and began to curse in Spanish.

"We can't get away," Soames was puffing. "We can't get away."

"We've come this far," Geller yelled, turning to see the men just beginning to come from the Cantina. "We're going to get the silver!"

They raced across the plaza and down another street. At the end stood the metal bulk of the rocket station. A guard saw them running and lifted his rifle tentatively.

Geller fired twice, and the guard dropped. Heads stuck themselves from windows, then pulled back hastily. The bean factory whistle began to scream.

Out of breath, the two staggered into the office. Two secretaries retreated against one wall. By that time, Soames and Geller were in the hangar.

A bright red Class F Jumper lay in one angled rack. Her sides were caked with rust, and the inside of the stern tube was sticky with sediment.

"Inside," Geller ordered. A Mexican mechanic peered from within the main tube on the nearby mail rocket. Geller shot at him and he ducked back.

Soames heaved himself up the ladder and through the companionway.

Geller followed, slamming the port and locking it.

He swung into the shock seat in the control room, Soames in the other. His hands flicked over the banks of switches, and threw home a toggle.

The jets hummed with a troubled, coughing roar.

Geller touched another stud and a red light outside the cabin winked. The doors of the launching rack yawned and the tractor platform moved the ship into the airlock. Something clanged behind them, an indicator showed that the air had been removed, and the outer doors opened.

The black sky soared over them, alight with the witchfire gleams of the distant stars.

"We've got to get off Luna," Soames said. "No time to lose."

"There's a job to do first," Geller said.

He smashed his palm on the stud marked *Accelerate*.

THE ROCKET shuddered and was flung out through the wall of the city. The jets took hold, and the dusty landscape dropped away below them, white and shining.

Geller made rapid adjustments on the gyro control. He unwound the tape, cut tiny alternate notches with his fingernails, and re-fed it hastily into the coordinator. His face was drawn tight.

"Venus," Soames said, reaching for the tape with sweaty pink hands. "Venus. Set the course for Venus."

"The tape is set for pilot control," Geller told him, closing the lid of the gyro case with a snap. He laid his hands on the tube control keys. "We're heading for the silver."

Soames babbled helplessly about running away. Geller let his fingers roam over the firing keys, feeling in them the end to his existence of grubbing for a livelihood in the towns and

the calcium camps. His fingers went white as he depressed certain keys.

The coughing thunder of the jets drowned out Soames. The ship groaned, swinging ponderously. The landscape tilted and slid beneath them.

"I know I wanted the silver like you did," Soames breathed, clawing at Geller's shoulder, "but I'd rather stay alive. They're probably calling Luna City right now. A Control Police ship will be on the way any time now! Let's get out...for Christ's sake, Geller...let's get out..."

His voice was sandpaper, his face pale and blotchy like spoiled meat.

Added acceleration rocked the ship. And Geller chuckled quietly.

The Leibnitz Mountains made a solid wall of white in front of the ship. And out of the mountains rose the decaying pinnacle of the Burning Finger.

Soames retched helplessly in the shock chair as Geller maneuvered the ship close to the top of the stone prominence.

At last he jockeyed into the proper position and shut off the jets. Presor beams, darting down to the surface far below, held them aloft.

Geller reached for the box he had salvaged from the truck. He slipped into a pressure suit and took the helmet from the adjoining locker.

"I'm not going," Soames said "I don't want it that much."

Geller lifted his gun in one gloved hand. "You're going."

Soames swallowed and reached for a suit. His eyes were smoking mad-houses where fear began to twist the brain into strange patterns.

They clanked to the lock, waited for the air to vanish, and stepped outside into a world of blinding whiteness.

The two men stood on the Burning Finger. It was a square column of rock with a wide plateau-like top. This

upper surface was tilted at nearly a seventy-five degree angle, and the ship was anchored at one of the lower corners.

Up the long slope of whiteness, there was a square outcropping.

"That's it," Geller murmured tinily through the headphones. "That's where the silver is."

Soames looked about and clutched at him. A retching sound rattled through the phone.

The drop was ten thousand feet, straight down.

"Get back in the ship," Soames muttered incoherently. "In the ship..."

He started toward the rocket. Geller struck his arm with the gun and dragged him a few feet up the slope.

"Walk ahead of me, Soames. Walk ahead of me or I'll kill you."

SOAMES staggered up the steep slope, chattering crazily in the phone.

They toiled upward, tiny figures against a contrasting background of glaring white mountains and distant black sky.

Soames tripped on a rock. The boulder went careening down the hill, driven out into the airless void beyond the cliff where it swung downward in a long drifting arc. It vanished beyond the bubble of New Taos, still curving toward the ground.

Soames watched the spectacle, fascinated. "I'm not going to do it, Geller. I don't want the silver."

The other man struck him again and they continued their march upward.

They reached the square outcropping and halted. Geller moved a safe distance from Soames and stuck the gun in his belt. With fumbling gloved hands, he opened the black case and pulled out a large tuning fork.

This was the thing he had gotten from the old man, who had worked to

make it for twenty long years. A simple tuning fork, but adjusted to give out a special set of vibrations. The old man had remembered the secret of opening the crypt from his earlier days, and labored to recast another key to the treasure.

Soames watched from inside his helmet like a man caged. His eyes blinked with monotonous regularity in the white glare.

Geller waited, looking at the fork. So much was wrapped up in that small instrument. He almost did not have the courage to use it.

But there was another strength pouring through him. The strength of security, and a rich easy life. That was the prime driving force, overcoming all others.

He struck the fork on his boot and held it against the rock. He could feel it transmitting forced vibration.

For a minute, nothing happened.

"No silver," Soames was gurgling, clapping his hands together. "No silver, no silver, no silver..."

To Geller, it was as if he stood on the rim of the world. Not the bright rocky world of Luna, but the warm rich world of wealth. The little fork vibrating in his fist would decide whether he would go to that world, or be forever lost in the void of being nothing and nobody.

The vibrations were dying away.

Geller began to pray, softly, fervently, the only way he knew.

"Goddam you, open up...open up...goddam you...open..."

And a counterweight creaked and a piece of rock moved.

Pile upon silver square pile it stood, delicately balanced, making a sheen that filled the hollow rock. Geller stepped back and laughed, loudly and happily, examining the beauty of it. The hoard....

Lachlin's silver!

He seized Soames by the arm. "Start carrying those ingots to the

ship." Everything had to be done quickly now, methodically.

SOAMES hefted several of the bars, nearly weightless in the reduced gravity. He started down the slope, stumbled once, got up, looked back at Geller, and vanished into the ship.

Geller felt coldness on his back. Those eyes no longer belonged to Soames. They belonged to something else...something that was driven into madness by the fear and the awful splendor of the rising mountains.

He drew his gun and waited. But Soames reappeared and labored up the hill. Together, then, they began to carry down more ingots.

Geller emerged from the rocket at the end of the third trip to see Soames standing rigidly at the top of the long slope.

"What's wrong?" Geller asked through the phone.

"Look there," Soames breathed. "*Look there!*"

Geller twisted. A rocket was rising from New Taos.

"They're after us," Soames was saying. "They're after us, Geller."

"That's the mail rocket! Probably sent out just now to bring help. They have no force in New Taos. They can't stop us."

He kept quiet. Soames was lifting one of the silver ingots high over his head. "They're coming for us," his voice creaked through the phone as if it sounded from some ancient grave. "I'm not going to help you any more..."

His arms came down and the ingot flashed free, spiraling toward Geller's head. Soames reached for another bar.

Throwing the silver away, thought Geller. *Throwing it away....*

He fired up the slope. Soames fell. He kept on firing. The bullets spanged into the stacked ingots. The precision

balance of the silver was broken. They began to move. The piles buckled. Ingots mushroomed outward, past the body of Soames.

More and more of them tumbled from the crypt. They rolled down the hill in great silver waves.

Geller stood at the edge of the plateau, watching them, nearly hypnotized by the eye-shattering brilliance.

Suddenly, he screamed and turned and ran for the ship.

But the first of the ingots struck him and he staggered. The avalanche slammed against his body. He felt himself carried backward, flung out into space in the middle of turning metallic confusion.

He stopped screaming and watched the silver bars spin all around him. Their momentum carried him out and down, in a kind of unreal floating gravitational pull. The Burning Finger fell away in the sky.

He was still watching the Burning Finger when the fall ended. He felt a rock pressing into his back, bending it.

His back bent double....and his body broke apart.

The Control Police came out in a flier and gathered up all of Lachlin's twenty-eight year old hoard, from where it was strewn on the pumice plain. They took the body of Soames from the Burning Finger. One of them commented, as Earthmen always did when looking at the Leibnitz Mountains of the moon reaching into the night sky, that any one would be a fool to try and conquer that awful majesty.

They had found all of the silver, and only a few scattered pieces of something once called Geller.

They climbed back into the flier. It rose in the bleak sky, a tiny spot against the mountains. The Burning Finger watched with eternal white strength.



The CLUB HOUSE

Where science fiction fan clubs get together.

Conducted by **ROG PHILLIPS**

TODAY is October 23rd—and somewhat of a special day. I'll tell you the reason why it's so special in just a minute. But first, I want to discuss the pile of fanzines here beside me for review this time.

I enjoy reading them and enjoy reviewing them, but it's quite a job to do properly. Sometimes I overlook or lose one before reviewing it. I don't intend to. Sometimes I get absent-minded and review the same fanzine twice in the same month. Or so I'm told.

A few months ago I got the idea of having the faneds review their own fanzines. Play it up big...sell them on the idea that they are in business for themselves and they should be their own advertising agents...ask them to make the CLUB HOUSE *really* just conducted by me. Then I could sit back and take it easy, writing an editorial in this spot, and let the fans do all the work...

But only a few of them bit for that line. So I was back practically where I started. In fact I had never left there. I still had nearly all the fanzines to review. My guess is that the faneds want me to read their zines, and know darned well I would be too lazy to if they sent in reviews written by themselves.

But all that is changing now. The struggle to keep the Wolf away from my door is over. No, I haven't sold a story for fifteen thousand dollars. Nor has Hollywood given me a quarter of a million for screen rights to *So Shall Ye Reap*. Nothing like that.

What is the simplest, most effective way to keep the Wolf from the door? Open the door and invite it in! Nobody ever thought of that before. Not only invite it in, but put it to work! Not only that, but—well, why not marry the Wolf? Especially when her very name suggests it. Mari Wolf.

Today she's arriving from California. She doesn't know about this big stack of fanzines to be reviewed. And before she knows it, she's going to become Mari Phillips. As they used to say in high school geometry, "Q.E.D."

From now on this department will have an associate conductor. How does Rog and Mari Phillips sound to you? OK. I'll write the editorial and she can review the fanzines. Or should I let her have something to say about it? It just could be, you know,

that I won't be the boss in the family....

* * *

It's now Saturday instead of Monday. Mari and I were married at the *Country Church in the City*, in Chicago, on Tuesday, October 24th, at four in the afternoon. Ray Palmer and Bea Mahaffey held us erect when our knees shook too much. Howard Browne, Bill Hamling and Lila Shaffer were there, too. After it was all over, and Mari and I were leaving the church, they were outside forming a lane which we had to go through, showered by rice.

Afterward there was a wedding banquet. Wedding cake and everything. In a few days now we'll be starting for New York, taking our time and seeing a few of the sights, such as, perhaps, the caves in Kentucky.

But—and am I disappointed—Mari refuses to be relegated to assistant conductor of the CLUB HOUSE. She may be my competitor, writing a fanzine review column in a rival magazine, *Imagination*.

Not only that, I'm going to have to write better than I ever wrote before. Even then it's likely to be a losing game. The time will come very soon when my wife will be a better writer than I can ever be. You'll be seeing her work in science-fiction magazines soon, but I rather think you'll be seeing a lot more of it in the smooth-paper magazines. So keep your eyes on the name Mari Wolf. It's going places. Some day soon she will be a big money writer—and then she can support me in the manner in which I want to become accustomed.

Now to the fanzines, which I must review alone.

* * *

THE CINVENTION MEMORY BOOK: Those of you who haven't bought your copy yet had better order it soon. There aren't many left. For those of you who don't know what it is, it is the fanzine put together by the Cincinnati Fantasy Group who held the convention in 1949. It's a dollar. You can get it by sending your dollar to Don Ford, Box 116, Sharonville, Ohio. Even if you didn't attend the Cinvention it will be worth it.

* * *

FAN DIRECTORY: 25c; Len J. Moffatt, 5969 Lanto St., Bell Gardens, Calif.. This is not a fanzine but a printed booklet containing the names and addresses

and activities of four hundred and four active science-fiction and fantasy fans. It is a serious and worthwhile work, and I hope it grows and keeps up to date each year. A sort of Who's Who in fandom. Its co-sponsors are the Fantasy Foundation and the National Fantasy Fan Federation. All of you should send for a copy, not only for the information it contains, but in order to help make this a paying project. If I know anything about printing costs, Len Moffatt and his co-sponsors will lose money unless they sell every copy.

STF NEWS LETTER: 10c; Bob Tucker, Box 260, Bloomington, Illinois. A photo-offset newszine of eight pages, published bi-monthly. The October issue contains the Norwescon report, including the news that three hundred and seventy-five attended, six hundred and twenty dollars was garnered at the auction of original illustrations from the prozines, and hundreds of other interesting facts about the convention last Labor Day.

THE EXPLORER: 10c; 50c/yr.; Ed Noble, Jr., Box 49, Girard, Penna.. Published by and for the ISFCC, the International Science-Fantasy Correspondence Club. A letter accompanies the October issue. I think a lot of you new fans who don't get this zine are missing something you are looking for. Why don't you send for a copy and see for yourself?

SINISTERRA: 25c; quarterly, g.m. Carr, 3200 Harvard N., Seattle 2, Wn.. A publication of *The Nameless Ones*, the fan group of Seattle. Blue paper cover with cover illustration by Phillip Barker. The index lists such interesting titles as "On Dreaming of Dragons" by Gordon Springer—a poem; "Operation Shrinkage" by Leslie H. Jones, a very clever little story I enjoyed reading. You'll find plenty of other interesting stories and articles in the thirty-six pages of this well put together fanzine.

FANTASY ADVERTISER: 15c; 1745 Kenneth Road, Glendale, Calif.. A nice little photo-offset adzine with some well worth reading articles and stories besides. Squires, the editor, does some interesting editorializing. After having read several issues I think his comments are the most interesting thing in the zine. But of course the main reason for subscribing to this zine is to read the ads with the object of selling or buying back issue stf magazines and books. Practically any magazine ever printed in the science fiction line is advertised for sale, and at a reasonable price, too.

SCIENCE, FANTASY, AND SCIENCE-FICTION: 20c; Frank Dietz, P.O. Box 696, Kings Park, N.Y.. Frank is quite an expert at the printing game now. It's a pleasure to see how nice each copy of his

zine is in its technical makeup. And the contents are tops too. You can't get a better fanzine. It's the official organ of the fan artist group as well as a generalzine. The "Chat with the editor" is always interesting. This issue also contains reports on the Phila. conference, the N.Y. conclave, and the Hydra Club New Year's Party, all with pictures taken there of notables and groups. An article, "Problems of Space" is concluded. Beginning next issue is a series of articles discussing the probable conditions of non-oxygen breathing alien life. That should be especially interesting. Did you know that there is germ life right here on earth that dies in oxygen atmosphere, and thrives in other types of atmosphere such as ammonia? It's true.

EGOBOO: no price listed, but you should be ashamed to ask for it unless you send at least a dime. The Nekromantikon Press, 1905 Spruce Ave., Kansas City 1, Mo.. This is not a fanzine, but a small booklet containing a story whose title is "Egoboo". It's a satire on fandom, or a "romantic fantasy of the fortieth century". Only thing wrong with it is that I can't find who wrote the darned thing...

BABEL: free; Stellarian Publications, 415 Simpson Ave., Aberdeen, Wash.. Not far from Seattle and connected with "The Nameless Ones" of Seattle. A newszine, it says, but it's more like a regular fanzine in contents than a newszine. There's an interesting article on symbols in the issue sent for review. It's by James Bass. The Terran Society, the fan group of Aberdeen, seems to be growing. You know, it's really amazing when you stop to think of all the fan clubs all over the country that hold regular meetings and get-togethers.

CHALLENGE: 30c; Lillith Lorraine, quarterly, a poetry fan magazine by one of fandom's greatest poets. There seem to be a lot of poets in fandom. *Challenge* has been well received, and shows promise of getting a large list of subscribers. In this issue, (Fall 1950), are quite a few stellar fan names. But Lillith has what I think is the best poem of the whole issue. "Empress of the Stars". Wish I could print it here for all of you to read. If you like poetry you'll enjoy this zine.

NEKROMANTIKON: 25c; Manly Banister, 1905 Spruce Ave., Kansas City 1, MO.. "Amateur Magazine of Weird and Fantasy". Unless this zine has a paid circulation of at least a thousand copies I don't see how it can possibly break even. It isn't a fanzine in a way, but is definitely an outlet for top quality fan writing. You'll have to see it to fully realize what I mean. This fall issue contains three items. "Twilight Fell at Camelot" by M. Houston, "Why Abdul Alhazred Went Mad" by D.R. Smith, and an article on "Lillith Lorraine and the Avalon World

Arts Academy" with a picture of Lillith—a very attractive woman.

SLANT: no. 4, Autumn 1950; to get a copy send him any one of the science fiction magazines you happen to have—even this copy of *Amazing* after you've finished reading it. Walter A. Wills and James White, 170 Upper Newtownards Road, Belfast, Northern Ireland.

This zine is definitely growing. I remember the first issue last year and all the trouble they had getting it out. And the priceless pun its editor pulled: "My father was a printer and I'm just reverting to type."

H. Ken Bulmer authors a nice story with a chess twist, entitled "Spacemate". Geoffrey Cobbe has a saga of the spaceways called "Black Bart's Revenge". The story is far from corny in spite of the title...

You know, I think the fan editors in this country should subscribe just to see what can be done to get some new interest in their own zines. *Slant* really has it.

WONDER: Michael Tealby, 8 Burfield Ave., Loughborough, Leics, England; three issues for one American promag. Another fanzine from the British Isles. Even if they were no good we should subscribe to them in order to help them out over there. But they're tops. Not only in contents but in printing. They seem to put more thought into them over there. And of course with printing and professional markets somewhat limited there they get better talent in their stories and articles.

Ken Slater has an article on Flying Saucers. Fiction includes, "New Order" by Peter J. Ridley, "In This Lonesome Wood" by Peter Russell, and "Requiem" by John Allen. All good.

FANTASM: no. 3; 5c; 6/25c; Lawrence Campbell, 43 Tremont St., Malden 48, Massachusetts. A real amateur fanzine, half size, a combination of mimeo and pencil. The editor says, "We have a new column by Carl Reddy which we hope you'll like. A story by Frank L. Hillman we think is pretty good and another installment of "The Story of the Atom". Also more book reviews as requested. Next issue will probably have "The Curse of Amon Bab..." There's more than that, however, and an excellent three color cover.

SEETEE: 10c; W.D. Knapheide, Tellurian Stictioneers, 3046 Jackson St., San Francisco 15, Calif.. October issue. A very small zine, but those of you in the Bay Area should be very interested in its contents.

JOURNAL OF SPACE FLIGHT: 25c; published by the Chicago Rocket Society, Wayne Proell, 10630 S. St. Louis Ave., Chicago 43, Ill.. One of the most informa-

tive fanzines published, and dealing with only factual material related to space flight and its problems, and the problems we will encounter when we reach other planets and the moon. If you live in or near Chicago you will also be interested in attending their meetings, held in Roosevelt College once a month. Lead article this issue is "The Significance of Monatomic Gases in Planetary Space Operations" by Wayne Proell himself. "Rocket Abstracts" is a department containing short digests of items of interest on rocketry, edited by N.J. Bowman.

FANTASY-TIMES: 10c; twice a month; James V. Taurasi, 137-03 32nd Ave., Flushing, N.Y.. Fandom's top newszine. I doubt if there's a thing of interest to stf fans that isn't caught and put in this zine within two weeks of its happening—and often long before you could learn of it otherwise. "Fantasy Forecasts" announces what's going to appear in the prozines before they even reach the stands!

In the second September issue is the announcement that Olaf Stapledon died Sept. 7 in Caldy, Cheshire, at the age of 64. His story "Odd John" contained some very wonderful passages and ideas, and powerful characterization. It compared with many of G.K. Chesterton's books. But the point I want to bring out here is that Stapledon died September 7th and *Fantasy-Times* has it in their mid-September issue. There are similar things that F-T latches onto, and brings to you, that you can't get in your daily newspaper because they aren't of general interest. Every fan should get F-T just like he should get his daily newspaper.

FAN-VET: "Devoted to the interests of the fantasy fan in the armed forces." This is a fanzine that will go somewhat along the same lines as its companion zine, *Fantasy-Times*. However, it will be for the fan in the armed forces, keeping him informed of other fans at home and also with him in the armed forces. If you who read this are under contract to Uncle Sam, send your name and mailing address so you can get copies. If you would like to help out on this project either financially or with brains and muscles in the actual publishing, write to THE FANTASY VETERANS ASSOCIATION, Secretary Ray Van Houghton, 409 Market St., Paterson 3, N.J..

The current issue of *Fan-Vet* contains the news that Art Rapp has joined the army, and that Bob Sheridan, well-known New Jersey fan-artist, who was about to get his discharge from the army, will have to stay in for an indefinite period due to the Korean war.

That isn't all, but it's all there's room for this time. If you sent me your fanzine to be reviewed and it seems to have been overlooked, remember that it takes about
(Concluded on page 162)

LUNAR ECLIPSE

By L. A. BURT

THE RECENT eclipse of the Moon visible in the Northern portion of the United States was as usual, a spectacular and startling astronomical phenomenon. To watch the shadow of the Earth start to creep across the face of the Moon and to realize that actually it was racing there, was impressive. And since the Lunar eclipse was almost total, an excellent opportunity was had to make interesting astronomical observations of stars located at time visually near the edge of the Moon. The Einstein effect due to the bending of the light beam by the mass of the Moon was too small to be measured with present instruments. Nevertheless interesting data were recorded.

An eclipse of the Moon may provide an opportunity in the not distant future for another additional and even more startling display, a display in which the handiwork of men may be seen. Of course it will depend upon the eventual development of the rocket. Since this is inevitable we will undoubtedly see the display.

What could be more effective than astronomical fireworks! These would be perfectly feasible of course if men could make the trip. And if large or even modest quantities of oxygenated explosives and flash powders were fired against the Earth-shadow darkened face of the Moon we'd realize a significant event. As a matter of fact this has been planned in future rocketry. What a thrill would be conveyed

to the peoples of the Earth if they could see a man-made pyrotechnic display against the darkened face of Luna!

Whether or not men themselves attain the Moon's surface this soon isn't too important really, for that pyrotechnic display will probably be given with remote-controlled missiles sent against Luna's face. The niceties of this method still remain to be worked out, but it's in the cards, it goes almost without saying.

Another facet of the eclipse phenomenon, distinctly not fictional is the fact that the surface of the Moon suffers a drop in temperature when the cold Earthian shadow rolls across. This is perfectly obvious when one realizes that we are seeing night on the Moon during the eclipse. The Earth interposes its bulk between the Sun's rays and the Moon, and deprived of its sole source of heat the Moon can only radiate and cool off, which the loose pumice surface does with alacrity.

At such times the frigid Lunar surface becomes even colder than it normally is. To men on the Moon during a Lunar eclipse, the eclipse would be that of the Sun, in contrast. And they would be the first to see the Earth cut across the Solar disk. That too would be a thrill. But to men in such a position, standing on Luna's icy pumice it is doubtful if they could be thrilled any longer. They would have achieved the ultimate. And remember, always, the day and the time are coming...

WARPED SPACE



By JUNE LURIE



RECENTLY someone wrote into the magazine asking half-seriously, half-humorously, "what is a space-warp?" That's perfectly understandable. The expression is often tossed around with great facility by authors, particularly those with a considerable problem to solve. "Ran threw the control and the Astrid found itself meshed in the black nothingness of a space-warp..."

Well, a space warp is handy to have around but it doesn't mean much to our physical sense because we never encounter save in the most abstruse form—in relativity theory. And then we only sort of get a picture by analogy, by comparison with more familiar "warps".

Consider a piece of rubber sheet stretched taut. This represents a world, a universe to two-dimensional creatures, "flatlanders" as they're often called. To them there is no up and down—only forward backward, sideways. Now if this rubber sheet were shaped in the form of a sphere or ball we could say that the flatlanders "space has been warped." Their universe would have no edges as before

but would have no beginning and no end.

We know that a beam of light when passing near a star, is bent. We say that the space around the star is "warped". We mean by extension something very similar to the warping which has taken place in the flatlanders' two-dimensional world. It is in effect an amplification of the "fourth" dimension.

We see a warped space as one not of this universe. We see it as a fourth-dimensional twist in time and space, completely out of tune and key with our universe. What the actual conditions in such a space would be assuming we could physically visit it, we can't even guess. We don't even know if such a space exists. We're inclined to think it does but the only experimental proof of it is the bending of a thin beam of light near a star.

Admittedly that's not much help in trying to visualize the space warp the science-fictioners speak of; but then, the mind is a free agent. We'll go along and imagine anything we want inside our space warps, including the fourteen headed dragons with the purple eyes...

The Reader's FORUM



LETTER OF THE MONTH

Dear Ed:

It has taken about twenty years to write this letter so no doubt it will be full of disjointed ideas; but in that length of time I have managed to work up quite a few gripes and I must mention a lot of them. Since I started reading sf with the issue of Science Wonder Stories which pictured a tidal-wave I have tried many different magazines. And while I do not consider myself an expert, I do feel that my experience in sampling has given me some ideas of what I want.

First of all, the main reason that I am moved to write to you is to say congratulations for the November cover. I don't care what it is just so there are no nude women or BEMs on it so that I have to throw the cover away before I can read it in public. Personally, I would prefer mechanical designs or scientific drawings. Since I read the sf partly for the science angle, I do not care to have the cover look as though it were pornography or children's comics. As to the inside illustrations I agree with Kirk Raymond. I doubt if scantily clad girls will ever be exploring the asteroids.

As to stories: It seems that you have some discussion on concerning your half-page shorts. I like them very much since I often find that they have much more thought-provoking information per inch than the stories per yard. (By the way, did Milton Matthew "Around She Goes" figure how much change that twenty millionths of a second per day makes in earth's orbit?) My vote also goes for lots of stories rather than two or three long ones. I think AS feels that way, too.

In The Reader's Forum I appreciate your answer to Steve Bartolowitch saying that stories must have drama to be interesting. However, some authors could find some drama without using the same sort of "conflict" so often. Perhaps enough "information" could be put into a story to make it interesting.

Another word about stories: Brothers Under the Skin is well written with a plot that follows through in unbroken style. BUT, I am glad Vance is only writing about his women. If he did one of your covers with his ideas of women I would be afraid to take one home.

In re the tempest in the observatory, I think you are both right. It is undoubtedly true that the bulk of the mag's readers never write to the ed, or belong to fan clubs, or go to conventions. However, I do not agree that they are only interested in entertainment. After some of the circuitous logic in some sf mags I am sure no such reader would ever buy another. It is true that readers are interested in science and want facts. This is one reason I vote for scientific pictures on covers. The average reader wants to feel that he is learning more about science even as he reads an enjoyable story. He feels that he is progressing beyond the layman who has not studied the wonders of the universe. Not only that, he also likes to be looked upon as a man who is serious minded. Therefore, give him a cover that agrees with his state of mind and with the things he wants people to think when they see him reading the sf.

Well, speaking of circuitous things, this letter has completed the cycle from covers to covers!

Wess Wakefield
60 Big Spring Avenue
Newville, Pennsylvania

Our thanks to Mr. Wakefield for having something of importance to say, and for saying it clearly and succinctly. —Ed.

HOW MANY ARE THERE?

Dear Editor:

OK! I am one of the people you sent the S.O.S. for in your November issue.

I never write you letters nor do I belong to fan clubs, etc. I have been a reader for over 21 years.

I am in the mid-40's and my income is well up in the five figure bracket.

My answers follow:

(a) I am vitally interested in science.
(b) I want science as a basis of the stories.

Frankly, some of the stories themselves are a bit childish, especially when they attempt to bring in love interest. The reason I have read your book for over 21 years has been because of the scientific angle, surely not for the childish love affairs often worked into the stories. It's not that I object to the human element

(Continued on page 152)



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(Continued From Page 150)

being worked into the stories but that the authors seem to be at a loss as to how to handle it.

(c) I suppose that I am a "fan" though it would never occur to me to join a fan club or write letters to your publication.

If there is any one thing to which I do object (and to which various friends of mine object), it is your covers. I tell you that I feel ashamed many times to carry the magazine out in the open. I cover it up with a newspaper. I am NOT ashamed to read scientific fiction—indeed I have persuaded many people to start reading it!—but I am ashamed to be seen carrying a magazine with a cover that looks as if it were a sex magazine.

A friend of mine, who is around 50 and who holds a very fine position in the business world, also loves to read your book, yet, is embarrassed by the covers.

I wonder if you realize how many of your readers are men in the 40's and 50's, holding positions in the upper brackets? They don't write to you for many reasons. My own guess is that reason number one would be your covers. It may sound funny to you but many of us just hate to tell people that we read your book because of the wide-spread impression amongst non-readers that your book is some sort of school-boy, "sexy" book.

I know this is not true but your covers make it difficult for us.

Long Time Reader

We do wish that you had furnished your name and address; we would have deleted them in publishing your letter had you instructed us to do so. Letters such as this are of value to us, but we want to be sure they are bona-fide. Enough of them indicating what you want AMAZING STORIES to be, will make such changes inevitable.

—Ed.

NOW WE KNOW!

Dear Editor:

You certainly ruined your chances for the Space Academy with your answer to Mr. Sorey's letter regarding "escape velocity"! As an old rocket jockey, stf-wise, for some fifteen years, it behooves me to set the matter straight on its tail-fins.

First, regarding your answer: an acceleration of 7 G's means the rocket blasts with a total of foot-pounds of energy equal to seven times its weight at sea-level. Now, this could or could not lift the rocket off the Earth—depending entirely on how long it kept blasting. If it blasted about four minutes, it should make it. If the rocket blast lasted only a split-second, it would raise the rocket just a few feet off the ground.

But to explain the matter, a layman needs to understand only this: velocity means the speed of the object; acceleration means an increase in the speed of the

object. Other than that, a layman merely has to think.

The "pull" of gravity at sea-level (it decreases or "gets weaker" very gradually, the higher you go) is equal to an acceleration of 7 miles per second. Theoretically, a man falling from 20,000 feet should be falling so fast when he neared the ground that the wind would tear him to pieces. Actually, the air resistance slows him down, usually to a velocity a little over 150 miles per hour, within a few seconds...unless he opens his parachute. But a few have fallen 5,000 feet and lived!

Since there is no such air resistance in outer space, velocity is said to be constant. Actually, it isn't.

Now, to jump right off the Earth, a rocket must reach the velocity of 7 miles per second. Once it does, it can stop blasting and simply coast.

But gravity is very much like magnetism, in a way. Gravity will still be "pulling" at the rocket, even without weight. And gradually, the rocket's speed or velocity will be slowed. At a distance of about 200,000 miles, a very slight weight will return and the rocket will start falling back to Earth. Again, no weight.

The neat thing about this, however, is that if you blast off in a curve that brings you directly in front of the Moon—making allowance for the Moon's movement around the Earth—the "pull" of the Moon's gravity will be greater than that of Earth. So your rocket will start falling toward the Moon. Then, for this one trip, you need only enough fuel to decelerate—decrease your speed—and come gently to rest on the Moon.

At present, it isn't the human passengers who are the problem, but the fuel. Chemical fuels, now used in rocket misadventures—of atomic energy are well with fuel you need to supply enough power, the bigger the rocket must be to hold it, which means the more fuel you need to lift the bigger rocket—it's a vicious circle. A chemical fuel rocket the size of Mt. Everest just might make it. But there aren't enough of the proper minerals for such a fuel on the face of the Earth to fill that ship's tanks.

Atomic energy is something else again. The power limits—there are limits, incidentally—of atomic energy are well, within our requirements. All we have to do is develop some means of harnessing atomic energy to rocket propulsion.

Then, according to all indications, we should be able to build a spaceship that can carry men and provisions to the Moon, and return. Acceleration needn't be too strenuous on the passengers. At 4 G's acceleration, you would reach the required "escape velocity" of 7 miles per second within 8 minutes—not too strenuous at all, if you're lying down. All you need is a fuel powerful enough to deliver 4 G's thrust—and enough of it to continue

(Continued on page 154)



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(Continued from page 152)

blasting for eight minutes—to get the rocket off the Earth.

Landing on the Moon, which has only one-sixth the gravity of Earth, would be much easier and demand much less fuel.

However, theoretically Mr. Sorey was right! A ship that could take off at a comfortable 50 miles per hour—like a Piper Cub lightplane—and keep right on going could easily escape Earth and reach any other planet. The amount of fuel it would take is something else again. But someday, of course, we may have that kind of power to throw around.

By then, we should have reached the stars.

Joe Gibson
24 Kensington Ave.
Jersey City 4, N. J.

Our answer to Mr. Sorey's letter was to prove or disprove a theory of ours: the average reader of stf is not especially interested in how or why—but WHO. In short, it is the people and their problems in the stories that keep the readers' eyes glued to the page—not the properties of mass or the speed of light while passing through Aunt Gertrude's vermiciform appendix. So, in reply to Mr. Sorey, we gave him what, on the surface at least, would pass as a nice glib answer, but one not solidly based on fact—then sat back and made ready to count the letters pointing out just how wrong we were! We got 'em, too—but only a few in ratio to the number of letters each issue of the magazine draws from its audience. Reflection tells us this doesn't really prove our point beyond doubt; but experiments are always interesting! —Ed.

WHAT MAKES A CLASSIC?

Dear Mr. Browne:

I would like to say that I consider your lead novel, "Vengeance of the Golden God" by E.K. Jarvis, one of the worst novels, scientific or otherwise, that I have ever read. Based on a good idea, it was written in an absolutely childish way. Why, it sounded to me like the thrilling adventures of Captain Spaceship, or some darn-fool thing like that. On the other hand, the last story in the book, "Divided We Fall" by Raymond F. Jones, was excellent. It deserved to be the lead novel.

I would like to call your attention to a point. The late master, H.G. Wells, once said something to the effect that the thing out of the ordinary, one gimmick so to speak. I think this holds true today. I am sick of reading boring stories about spaceman's inns, or cloud cities, or other strange places where everything seems to be taken for granted. All of the great classics—both by Wells and the other early masters—have just one thing different, and thus makes the story much more interesting and horrifying. It is fear of the

unknown that does it. The first man to land on Venus is going to be much more terrified of the strange creatures there than the man who has lived there all his life.

As far as sexy covers and stories go, I am in favor of them as long as there is not too much. An overdose of anything can become boring.

R. R. Perkins
Sanbornton, N. H.

There are a great many fine science fiction stories that follow the formula you mention—and a great many others that ignore it completely. Like almost any other genre of writing, science fiction is much too varied and complex for such generalizations to hold up... As for "Vengeance of the Golden God", many readers thought it one of the best yarns we've ever run, while placing "Divided We Fall" well down the list. Just one more example of "a guy likes what he likes!" —Ed.

FROM THE OTHER SIDE

Dear Sirs:

Congrats on your third post-war British editions of your AS/FA series. The standard of your stories is very high indeed compared with most other British publications. The news that they are being published monthly now is good news indeed. If your stories keep their high standard I shall keep recommending them to my friends, some of whom are disappointed with what they have read in this field of fiction. Congrats again on your very fine mags.

Charles Gilroy
8 Hay Road
Craigmillar,
Edinburg, Scotland

"REAL TALENT IS SCARCE"

Dear Ed:

Although I discovered modern fantasy and science-fiction only about six months ago (via STRANGE PORTS OF CALL), I have already come to appreciate your editorial in the June issue of AMAZING. After reading several excellent anthologies and many issues of the magazines devoted to fantasy and science-fiction, I see that although a great deal can be done within the field, it still takes real talent and originality to produce outstanding stories. The top stories are out of this world—but there should be more of them!

You asked if we readers would like to learn more about the authors. I would!!! Just for a starter: Ray Bradbury (tops for my money), Murray Leinster, Jack Williamson, Henry Kuttner, Robert Heinlein, L. Ron Hubbard, L. Sprague de Camp, Fredric Brown, Walt Sheldon, John D. MacDonald and Mack Reynolds. Am also interested in the few feminine writers in this field: Margaret St. Clair, Leigh

(Continued on page 156)

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(Continued from page 154)

Brackett, C. L. Moore—. Of course, if you prefer to tell us about Paul Anderson, Robert Bloch, Theodore Sturgeon, George O. Smith, etc., I shan't object!

Here's to bigger and better editorials about our favorite writers! (Incidentally, won't your editorials be easier for you to write if you devote them to brief biographical sketches of your authors????? Why not keep the editorial page to yourself—and take another page or two for your writer profiles?

Kay Chelenudos
(No address)

Many of the writers you mention are so well known to science-fiction readers that we're hesitant over presenting biographies of them. Very soon now, however, we'll be publishing many stories by writers new to sf—writers we've been working with in an effort to bring something fresh and different into the field. We think our readers will enjoy meeting these authors, and pretty comprehensive biographies concerning them will appear from time to time. —Ed.

IF PSYCHIC PHENOMENA'S YOUR DISH

Dear Editor:

I note a few letters in your reader's columns on psychic phenomenon and Velikovsky's "Worlds In Collision". Very definitely, many scientists will have to revise some of their dogmatic views. Those sf fans who are interested in psychic phenomena might be interested in Prof. S. W. Tromp's "Psychical Physics", Elsevier Press, N. Y. C., N. Y., \$8.00. It goes into a thorough scientific analysis of parapsychic phenomena and is really a jolter. A book review of mine on this work is in the October, 1950 issue of the "Proceed—Some casual investigations of mine verify Prof. Tromp's and Yaeger's findings on ings of the Institute of Radio Engineers", homing, dowsing and divining and have located magnetic-sense centers behind and above the temples in the case of some ESP—sensitive individuals. I also noted magnetic-sensing reactions in the case of animals and insects. Other more obscure psychic observations have been forwarded to Prof. Tromp. Recent unbiased investigations of old armorers, prophets, astrologers, alchemists, witchdoctors, etc. writings have also unveiled a considerable amount of useful data. We still have an awful lot of so-far hidden lore to learn, for all our "science".

Ted Powell
24 Nassau Road
Great Neck, L. I., N. Y.

We'll still have "an awful lot to learn" a thousand years from now. It seems that the more scientists uncover, the greater the untapped source becomes! —Ed.

THE SUN NEVER SETS, ETC.

Dear Mr. Browne:

Although I have been a reader of AMAZING STORIES since the early '30's, when possible, this is the first time I've ever written.

As you probably know sf has a powerful following in Britain in spite of the difficulties during the war years of obtaining U. S. editions. However, things are much better now, and we have in addition to U. S. reprints at least one all-British quarterly which is up to standard. Also the promise of another to come shortly. Of course, there is a pretty wide gap in my AS reading between 1939 and 1948 except for a few picked up in various places: Kiosks in Athens, second-hand stores in Port Said, and newsstands in Malta. That was before the supply ceased in Malta; with the number containing "Giants of Mogo"—if I remember rightly.

There seems from time to time to be a good deal of argument between sf fans, comparing the early stories with those of the present day.

Personally, I am inclined to think that the average is rather lower now, but perhaps we "old-timers" in looking back are inclined to dwell on the "Skylark" series and Stanley G. Weinbaum's stuff. Recently I received some of these works in book form and must say that they are even better than I remembered them to be.

Why do you always have undressed females on the cover? I don't think this is attractive to the average sf reader. My wife sometimes looks at them in a thoughtful kind of way. Why not leave them out and let the heroes or villains concentrate their attention on the space-blasing or dimension-hopping?

The September issue was good (what there was of it), "The Eternal Eve" and "Time Is a Coffin" being the best. The October issue better still; "Seven Came Back" won here.

In conclusion, I'd be glad to send on my copies of the British quarterly to any American sf fan who cares to have it, and any of the others published here that turn out to be worth reading. Just drop me a line. Best of luck.

John Revans, E. A.
H. M. S. "Helmsdale"
c/o F. M. O. Portland
Dorset, England

"THOSE COVERS—" AGAIN

Dear Mr. Browne:

I have been reading your two magazines for a long time and I think it's about time for me to write.

I am 15 and I have been reading AMAZING STORIES and FANTASTIC ADVENTURES since I was 10. I want to tell you that I don't like some of your covers. When I bought the October issue of AMAZING the clerk looked at me as if I were a sex maniac or something. The

September issue was almost as bad, but I think your worst one was the August issue of FA. If my parents ever got a glimpse of THAT one—well, I'd have to stop reading your wonderful magazines.

I really enjoy your stories. Some of the best (in my opinion) were THE LOST BOMB by Rog Phillips, THIS WAY OUT by Julian Krupa, THE MASTERS OF SLEEP, by L. Ron Hubbard, THE MENTAL ASSASSINS, by Gregg Conrad, and THE MECHANICAL GENIUS by Gilbert Grant.

I enjoy the short features at the end of each story very much. In fact, I enjoy everything about your magazines except the covers. Yours are the ONLY magazines in the science-fantasy fields as far as I'm concerned, so how about improving those covers?

I hope you print my letter because I am a Burroughs' fan and I want to know if anyone in the Olympia area has any Burroughs' books that he might be willing to sell or trade.

I may be the only fan who thinks so, but you have plenty of letter space, and I would even suggest that you cut out those letters that practically applaud your sexy covers.

Thanks a lot for having St. John illustrate a story in November AMAZING. He's the best artist you have, and my favorite. How old is he? He's been illustrating Burroughs' yarns since 1915. By the way, what's his full name?

Zane Motteler
1815 Water St.
Olympia, Washington

J. Allen St. John, who did so much to ward making "Tarzan" a world-wide favorite of three generations of readers, is still a top-flight artist. We'd have to have his permission to state his age! —Ed.

COVER TO COVER!

Dear Mr. Browne:

Let me congratulate Ziff-Davis for their wise choice of a cover on the Nov. ish. I was getting so fed up with all the lush babes on the covers of AS lately. Good old R.G.J. can sure conjure up a good stf cover when he tries. Leave us hope for many more covers like this.

And now to the stories. "All Heroes Are Hated"—if there were a top ten of the best stf stories published in AS, I'm sure this story would be high up among them. It's just screaming for a sequel; I hope friend Lesser won't disappoint us.

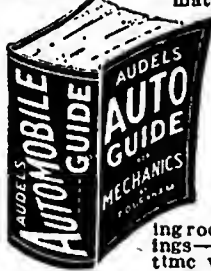
"Who's That Knocking at My Door?"—enjoyable reading, but nothing to rave about.

"The World of Reluctant Virgins"—the story was up to par, but the title should have been left on one of Jupiter's moons.

"Brothers Under the Skin"—this one was the second best in the ish. A well-knit plot with lots of spice (sounds like

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a recipe, doesn't it?). Like to see more from Vance.

"The Day the Bomb Fell"—this story was a superb piece of descriptive writing. After I read the story I looked out the window at the huge refinery, about a mile away, and a queer empty feeling came over me. It really makes you think.

"One of Our Planets Is Missing"—a very fine yarn, up to the end, that is. What a silly ending for a good story. The author had a good idea in his head, but didn't develop it. Sorry to see it. It could have been an even better story.

"The Devil In a Box"—By now you've probably discovered the linos' error or yours, so I won't mention it. Again I have nothing but compliments for a fine story such as this. Very easy reading.

The Reader's Forum: J. G. David's letter was by far the best. Since FA has a "write-a-letter-and-get-an-original contest on, why can't AS get in on it too?

Jan Romanoff
26601 S. Western
Lomita, California

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thought-provoking editorial in the "observatory" in the latest issue of AMAZING STORIES.

It was potent enough to draw me away from my transmitter schematics and delve into the significance of the unnamed writer's stated opinions.

If I had sufficient command of the English language, my letter would contain passages of flowery praise for both you and Mr. Hamling, but alas—no ability, so on with my cramped style.

Let's say I consider myself one of your average readers. I'm 26 years old, married, with one son. I'm employed as a broadcast engineer by the local radio station. My wife is slowly being converted but still raises one eyebrow when she sees me reading any of the present stf mags (those covers!!!). I read stf for relaxation, for the thought-inducing ideas in many of the stories and lastly but mainly for the many new technical aspects that are sometimes involved. I do not read every stf mag that pops up on the newsstands because our budget won't permit it. A large portion of the amount set aside for magazines goes for the technical manuals that concern my work, i.e., electronics.

I could show proof that any technical discrepancy that appears in an stf story is hashed and rehashed among our group of technicians. Yet, we aren't a fan club. In fact, we're still arguing over the theme of one of writer Craig Browning's stories that appeared in FA a couple months ago.

In regards to that story, Mr. Hamling should have used the one and only letter that I have ever written to an editor, as a concrete foundation for his argument with the unnamed writer.

I had no idea Mr. Hamling would publish that letter since it was rather critical but still contained mathematical proof of my criticism. Mr. Browning replied to my letter; offering his method of theoretical reasoning in creating the story but in no way pouring forth vituperation or sly insults because someone had dared to criticize his "baby" as some other writers are prone to do. He gained my respect, admiration and a faithful reader because of his broad-mindedness.

Unfortunately, I was semantically unprepared for his explanation; so I have forwarded his reply to a physicist friend of mine who is using our subject for debate as the victim in his work on improving the image othicon and cathode ray tube. I'll forward my reply to Mr. Browning thru Mr. Hamling in the near future.

The preceding was long and boring (meaning this missive) but it is what I consider adequate proof that I, as an average stf reader, am interested technically in the story structures. I follow stf as faithfully as my budget will permit. I might add that sometimes I don't get my money's worth, sometimes I do.

Here at our radio station we have an announcement asking consumers to buy by brand name. It states that by buying a brand name they can be sure of getting value in return for payment. In my estimation Ziff-Davis has always been a well-known brand name and constitutes definite dividends for the sum invested.

Mr. Browne, take that unnamed writer aside and "wise him up" as we say in the Navy. Stf readers are fans...we don't have to belong to clubs or write veritable manuscripts to editors to express our sentiment. We have a more effective method if the magazine material displeases us. We just quit buying the blasted thing.

Now I'm going back into my shell.

Bob Poorman
560 East Cumberland
Lebanon, Pennsylvania

We recently heard from the writer whose remarks brought on the editorial you mention. He admits he's not quite so convinced about the amount of science that should go into science-fiction, or just how valid that science must be. But he reaffirms his belief that characters and their problems make the story, rather than the science—a view with which we completely concur. —Ed.

LET'S NOT GET TECHNICAL!

Dear Sir:

I am a new reader of science fiction, and as such I am rather uncritical. For lack of reading material I bought your magazine one day and have since turned into a very rabid fan.

Speaking as one who just struggled through chemistry, I find some of your stories a little too technical. I hope Rog Phillips will forgive me, but the Matrix stories were far beyond my comprehension.

In general I think you have a pretty good level of writing. Naturally, some of it is on the Hollywood script basis; you can't be perfect.

I think your readers would be interested in the sf anthologies on the market. "The Other Side of the Moon", "Shot in the Dark", and the collections of best stories of the year all provide a high grade of writing and originality.

I'm glad to see that sf is coming into its own on the radio, TV, and movies. More and more people will leave the body in the vicar's rose garden and find their reading pleasure in the spaceways.

I would like to hear from a fan club in the Cleveland area, if such exists.

Noreen Kane
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TWO AND TWO MAKE . . . ?

By W. R. CHASE

SOMETIMES, to make a point, a lecturer or talker will state that "two and two don't always equal four. He's not trying to wise-crack or to be particularly smart. He's illustrating one of those surprising facts that seem to deny horse-sense logic, yet are, in fact, perfectly clear and understandable when you think about them. Almost always the catchiness lies in the figures and symbols used rather than in the reasoning. Probably the best place to look for these anomalies, is in a branch of mathematics called vector algebra.

Basically vector algebra is very simple. It happens that it is easy to represent forces and torques and other mechanical electrical quantities by means of straight lines of a length proportionate to the quantity and in the same direction as the quantity. This is shown by a line tipped with a little arrow. While this sort of symbolism is convenient to demonstrate with, you have to go back to letters and symbols for actual calculation. Thus a vector will be called "A" or "B" or "Z" or the like.

Consequently when you add vectors (say two forces for example like five pounds and ten pounds) you don't get simply fifteen pounds except in one special case—if the vectors are operating in the same line. Otherwise you get some new vector which depends upon the angle between the two. Thus vector A plus vector B can be almost any quantity. It's not a simple case of two and two.

Even more advanced and tricky is the fact that vectors are used to illustrate electrical quantities like the magnetic field around a wire. In such a case that vector is what is called the "cross product" of the two vectors of electric field and electric current. Consequently vector A times vector B is something entirely different than a simple multiplication even though the same "operational" symbols are used.

All of this leads to the major distinction in mathematics; there are two fundamental entities with which we deal—symbols and operators. You represent physical things or facts with symbols and you represent operations upon those things with other symbols called operators. It doesn't make any difference what the subject. So long as you stick to a logical system, the game is true.

Don't therefore, be frightened away from a mathematical argument just because it looks complicated. Regardless of how complex it appears it still deals with very fundamental, elementary things and it's just the rules of the game which are complicated.

Before this was understood, mathema-

ticians stood on their heads trying to make sense of the famous expression "the square root of minus one." What did it mean? How could you handle it? The answer came like a thunderbolt. You could handle it as you chose, depending upon what you wanted it to mean!...

BUTCHER IN THE DEEPS

By WILLIAM KARNEY

THE CATACLYSMIC war of the future will see the employment of the super submarine on a larger scale than ever before. It is the one type of sea-going vessel which can't be easily dealt with by rockets, by planes or jets. Super submarine refers not to a gigantic undersea craft, but rather to a small, high-speed, almost undetectable under sea ship which is self-contained by virtue of its snorkel breathing apparatus, and which moves beneath the water on engines which may in themselves employ some sort of jet principle like the squid it emulates. Such a submarine will be almost a free agent.

And since any future global war such as we might engage in, will require the movement of vast amounts of materials by surface ship, such an under sea menace, can actually be the enemy's trump card. It must be combatted—but how?


Right now the most active department in nautical research is the anti-submarine group. It's not fooling itself. It knows that such a submarine is in the cards and it must be dealt with. Therefore every energy is being bent toward battling it. Detecting devices of every kind are wonderfully improved and capable of sensing a lobster's wiggle at tremendous distances.

Detecting devices aren't enough though. You must be able to kill what you find! And the boys are grinding out gadgets for that purpose too. The latest wrinkle in a whole series of ingenious contrivances employ a shot-gun principle instead of the usual bull's-eye type.

Low-speed planes, perhaps even helicopters and blimps will fly over the area in which the submarine has been detected. Then from their bellies they will disgorge, not bombs, but high-velocity rockets, small ones, which will rip into the water in a scatter-pattern, dozens at a time, hoping to net and puncture the lurking sub. The small, efficient rockets, resembling bazooka projectiles need only touch the sub to punch a hole in it. Fuses will be so arranged to blow on contact.

The scatter principle of shooting, while seemingly more wasteful, is probably better in the long run. An evasive submarine is not easy to get with any type of weapon. And with under sea craft operating in wolf packs, perhaps they can be blown out of the water, as a shotgun blows ducks from a flight!

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IN FRIENDLY BATTLE

By

A. T. KEDZIE

WE, IN THE United States, in terms of mechanisms, observatories and instruments, have unquestionably the greatest astronomical facilities in the world. We are prime "data-feeders" and our discoveries are channeled out to the world continually. As had been true in most basic science, the foreigners' specialty is the use of these data, in the most abstruse and theoretical sense.

In the twenties and thirties, the English in particular have contributed greatly to theoretical astronomy. The names of Jeans, Eddington, and Milne are well known to all students of astrophysics. These men lay the foundation of the modern concept of stellar evolution and decay. The recent death of E. A. Milne closed the curtain on this brilliant trio's work, but that death by no means ended the man's influence.

Between them, Milne and Eddington conducted a rarified, theoretical argument whose repercussions caused a final straightening out and understanding of the nature of a star's interior. Milne believed that a study of the mass, the radiation intensity and the radius of a star enabled astronomers to compute the conditions inside that star. Eddington on the other hand, assumed certain internal stellar conditions and deduced the output of a star, a diametrically opposite idea. Eventually Eddington's technique was verified, but in the smoke of the battle, Milne's contributions could not be neglected. Milne did great work in relativity, unifying many elusive concepts and at his death was deep in the eternal problem of connecting electrodynamic theory with relativity.

It is interesting to note that Milne was strictly a "paper and pencil" astronomer, a type of scientist in which Europeans seem to excel, and which is no less important than the men who deliver the information. In the Western world this blend of theoretical with practical seems to be most fruitful. The name of Milne will long be remembered in astronomy.

THE CLUB HOUSE

(Concluded From Page 148)

three months for the review to appear from the time you send it, and sometimes four months.

When you read this my address will be in New York where Mari and I are moving. Wherever you have sent your fanzines they will be forwarded to me. Until further notice it would be best to send all mail and fanzines to the Ziff-Davis New York offices, 366 Madison Avenue, New York 17, N.Y.

—ROG PHILLIPS

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